



**PANAUST**

## **WAY AHEAD**

*2016 Business Review & Sustainability Report*



# COMPANY PROFILE

PanAust Limited ('PanAust', 'the Company', 'the Group') is a leading copper and gold producer in Laos with pre-development and exploration opportunities in Laos, Papua New Guinea (PNG), Myanmar and Chile.

PanAust's producing assets are the Phu Kham Copper-Gold Operation and the Ban Houayxai Gold-Silver Operation; both of which are located in the Company's 2,600 square-kilometre Phu Bia Contract Area in Laos ('the Contract Area').

In PNG, PanAust is advancing the Frieda River Copper-Gold Project (Frieda River Project). In 2016 the Company successfully completed a feasibility study for the Project and lodged both an application for a Special Mining Lease (SML) and an Environment Impact Statement. Frieda River is one of the largest known undeveloped copper and gold deposits in the world and offers PanAust excellent potential for the establishment of a world-class long-life operation.

In 2016 PanAust expanded its presence in Southeast Asia through a joint venture in Myanmar. These present an exciting opportunity to establish an exploration base in this prospective region.

PanAust is focused on a sustainable business model associated with the production and sale of copper and gold, delivery of production goals and economically astute growth. While copper forms the core product focus, gold and silver provide a measure of commodity diversity.

The strategic direction of the Company is to maximise returns from its producing assets while advancing projects that offer potential to sustain and grow the business in the long term.

PanAust is an Australian incorporated company that is owned by Guangdong Rising H.K. (Holding) Limited which is a wholly owned subsidiary of Guangdong Rising Assets Management Co. Ltd (GRAM).

GRAM is a Chinese state-owned company regulated under the State-owned Assets Supervision and Administration Commission, the People's Government of the Guangdong Province in China. GRAM operates as an investment company in mineral resource development, electronics, industrial waste management, real estate and finance.

## COMPANY STRUCTURE

PanAust's corporate office in Brisbane Australia provides leadership and support across the Group in relation to strategy, financial management, commercial and technical services, risk management, sustainability, corporate communications, human resources, governance and reporting.

## PANAUST ASIA BUSINESS UNIT

The PanAust Asia business unit has responsibility for operations in Laos and for supporting the implementation of business development strategies within Laos and the region.

## LAOS

PanAust owns a 90 per cent interest in the Lao-registered company, Phu Bia Mining Limited ('Phu Bia Mining'); the Government of Laos owns the remaining 10 per cent.

Phu Bia Mining (PBM) has a Mineral Exploration and Production Agreement with the Government of Laos which regulates exploration, development and mining activities within the Contract Area, and sets out the tax and royalty obligations.

## MYANMAR

PanAust holds an 80 per cent interest in Wuntho Resources Company Limited (WRCL) and has established a joint venture with Myanmar Energy Resources Group International Company Limited, a Myanmar based company, which holds the remaining 20 per cent of WRCL. The joint venture holds Exploration Licences over a 600 square-kilometre area in Sagaing Region of northern Myanmar.

## PROJECT DEVELOPMENT BUSINESS UNIT

The Project Development business unit has responsibility for the Company's development projects and provides technical and operational improvement support. It is responsible for the preparation of technical studies and for project implementation to deliver capital-efficient project development and strategic improvement initiatives to support and enable the Company's growth.

## PAPUA NEW GUINEA

The Frieda River Project is held by the Frieda River Joint Venture, an unincorporated joint venture between Frieda River Limited, a wholly owned subsidiary of PanAust Limited, and Highlands Frieda Limited, a wholly-owned subsidiary of Highlands Pacific Limited. Frieda River Limited manages the Project and holds an 80 per cent interest; Highlands holds the remaining 20 per cent interest. The Independent State of Papua New Guinea (PNG) has a right, prior to the grant of a SML to purchase up to 30 per cent equity in the Project.

## SOUTH AMERICA

### CHILE

PanAust holds a 66 per cent interest in the Inca de Oro Copper-Gold Project through a Chilean incorporated joint venture company, Inca de Oro S.A. The Company also has a 100 per cent interest in the nearby Carmen copper-gold deposit.



**DIRECTORS**

Dr Lixin Wang, Chairman  
 Dr Fred Hess, Managing Director  
 Mr Qian Deng  
 Mr Gang Yu  
 Mr Minzhi Han  
 Mr Zezhong Li (resigned 6 July 2016)

**COMPANY SECRETARIES**

Ms Qingshan (Laurinda) Zhang  
 Mr George Piggott

**AUDITORS**

PricewaterhouseCoopers  
 480 Queen Street  
 Brisbane QLD 4000

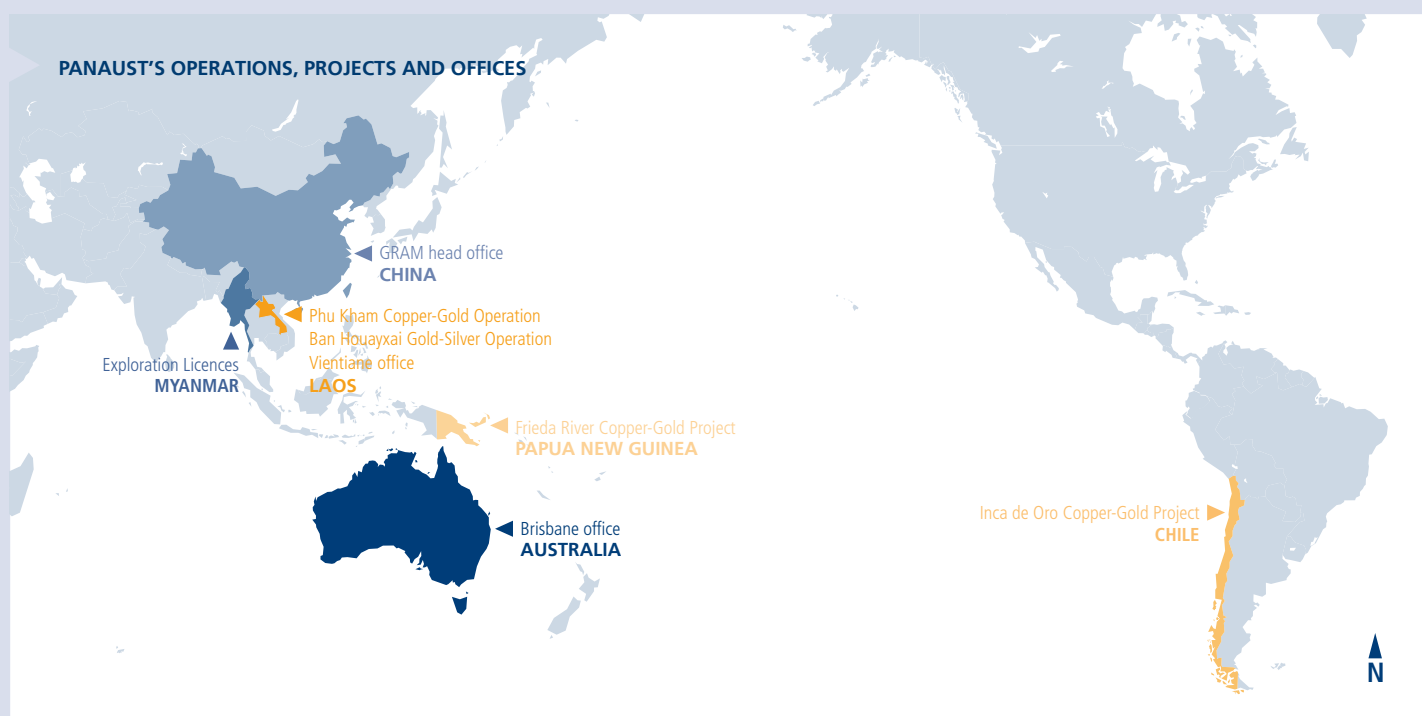
**BANKERS**

ANZ Banking Group Limited  
 324 Queens Street  
 Brisbane QLD 4000

See PanAust's website for profiles of the members of PanAust's current Board [www.panaust.com.au/directors](http://www.panaust.com.au/directors)

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**PANAUST'S OPERATIONS, PROJECTS AND OFFICES**

## MATERIALITY AND SCOPE OF THIS REPORT

This 2016 *Business Review & Sustainability Report* has been prepared in accordance with the Global Reporting Initiative (GRI), G4 Sustainability Reporting Guidelines including the Mining and Metals Supplement. The scope of the Report, as per GRI materiality requirements, covers ‘*topics and indicators that reflect the organisation’s significant economic, environmental and social issues that could substantively influence the underlying value of the company, and the assessments and decisions of stakeholders*’. Materiality Counts, an independent assurance provider, has provided assurance of both the materiality assessment process and this Report. A copy of the assurance statement is on page 80.

### MATERIALITY PROCESS (THE PROCESS FOR DEFINING CONTENT OF THIS REPORT)

PanAust’s 2016 *Business Review & Sustainability Report* focuses on those issues that matter most to the Company and its stakeholders. PanAust applies a consistent approach to identifying, assessing and verifying material sustainability issues which is outlined in the following five steps:

#### 1. STAKEHOLDERS AND THEIR ISSUES ARE IDENTIFIED

PanAust’s stakeholders are identified based on their potential to impact or be impacted by the Company’s business activities. Primary stakeholders and interested parties are listed on page 33 of this report. For the 2016 *Business Review & Sustainability Report*, PanAust sought feedback from primary stakeholder groups through a targeted survey. The survey results were used in conjunction with outcomes from government and stakeholder engagement activities together with the review of independent benchmarking and competitor reports to identify issues of importance to stakeholders.

#### 2. PANAUST’S ISSUES ARE IDENTIFIED

PanAust identifies issues of importance by: reviewing and considering business strategies and policies, external commitments, risk registers, external audit reports, internal reviews and incident reports, issues highlighted through internal reporting processes, regular visits to operations, and by conducting workshops across the business.

#### 3. ISSUES ARE ASSESSED AND RANKED

Each issue is ranked on its level of importance to stakeholders and to PanAust. The criteria for ranking are largely based on how PanAust defines issues of significance (defined as levels 4 and 5 incidents/potential incidents using the Company’s ‘consequence table’) and benchmarking activities. The consequence table is available on PanAust’s website, [www.panaust.com.au/corporate-governance](http://www.panaust.com.au/corporate-governance). Issues are considered by level of interest

and commonality via requests for information from stakeholder groups and media coverage. Sustainability personnel (subject matter experts) across the business are engaged in the issue identification and ranking process. See more information on risk management on page 24 of this Report.

#### 4. MATERIAL ISSUES ARE VERIFIED

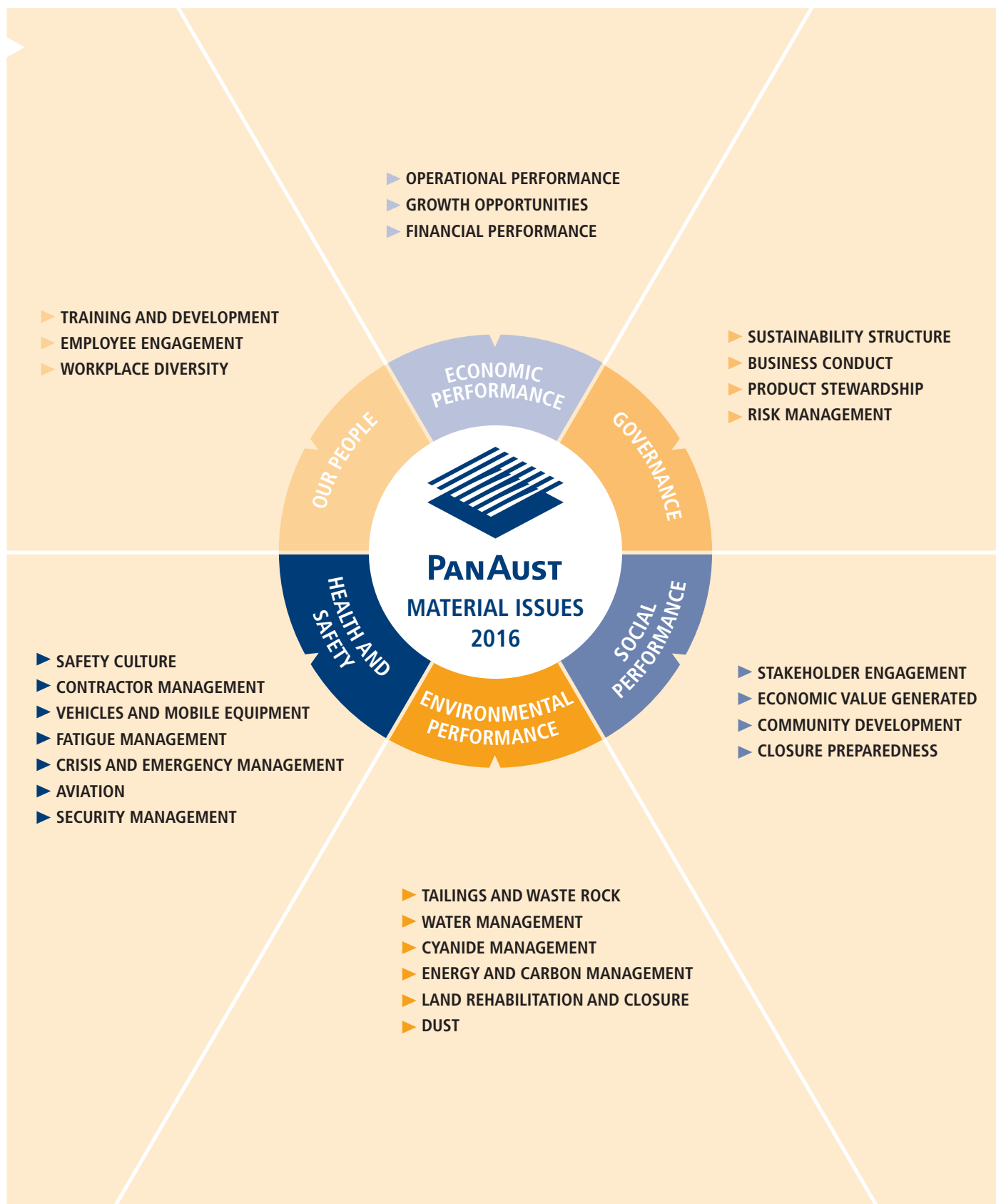
Material issues are presented to the Company’s Executive Management Team for review and feedback. The General Manager Human Resources and Risk Management then endorses the material issues for inclusion in the annual *Business Review & Sustainability Report*.

Materiality Counts verifies that issues identified as material are included in the Report. A rolling assurance program aims to work through the material issues over a three to five-year period with up to six material issues assured each year. Energy and greenhouse gas emissions are assured every year to inform PanAust’s reporting obligations to the CDP (formerly the Carbon Disclosure Project). Security performance and training are included in the annual assurance program to verify performance to ‘United Nations Voluntary Principles on Security and Human Rights’ to which PanAust is a signatory. The assurance scope is revisited annually to ensure relevance to those material issues of most significance in the reporting period.

#### 5. MATERIAL ISSUES INFORM COMPANY ACTIVITIES

PanAust’s approach to managing material risks provides a continuous improvement feedback loop, which informs Company strategy, budgets, and business and engagement activities. At the executive level, material issues define the sustainability and business improvement focus areas for the Company. These outcomes cascade to the broader sustainability governance structure and are incorporated into business and annual plans, and key performance indicators. In 2016, PanAust held its annual Risk and Sustainability Workshop with leaders from across the business to review and plan for the proactive management of sustainability issues faced by the business. The workshop provided an important avenue for the translation of sustainability strategy and planning into practice.

The following figure shows the outcomes of PanAust’s materiality process for 2016. Within the broader topic areas of Economic Performance, Governance, Social Performance, Environmental Performance, Health and Safety, and Our People, each material issue including the boundary of impact is addressed in this Report.



# MATERIALITY AND SCOPE OF THIS REPORT (CONTINUED)

## REPORT SCOPE

The principal activities of the PanAust Group during the 2016 reporting year were:

- production and sale of copper-gold concentrate from the Phu Kham Copper-Gold Operation, Laos
- production and sale of gold-silver doré from the Ban Houayxai Gold-Silver Operation, Laos
- exploration and evaluation of projects in Laos, Papua New Guinea and Myanmar.

Most of PanAust's reporting relates to the Phu Kham Copper-Gold Operation and the Ban Houayxai Gold-Silver Operation. Where relevant, information is also included for the Frieda River Copper-Gold Project in PNG.

Tables in this document advise where reporting includes data from exploration and growth projects other than the Phu Kham and Ban Houayxai operations.

This Report is for the 2016 calendar year and is PanAust's eleventh annual Sustainability Report; it follows that produced in 2016 for the 2015 calendar year.

## DATA COLLECTION PROTOCOLS AND REPORTING CURRENCY

With the exception of new reporting items, this Report presents data for a three-year period. Data for prior years (to 2006) is available in PanAust's sustainability reports and can be found on the Company's website, [www.panaust.com.au/reports](http://www.panaust.com.au/reports).

Unless otherwise stated, all monetary amounts in this Report are expressed in United States Dollars (US\$).

Data contained in tables and figures may include minor computational errors due to rounding.

## TRANSPARENT REPORTING

PanAust values openness and transparency in its business activities. Each year, the Company produces a financial report, a business review and sustainability report (this document), quarterly activity reports and other Company announcements as required.

With the exception of the financial report, which is submitted to the Australian Securities and Investments Commission (ASIC) and is available for a nominal fee paid to ASIC, all documents are made available on PanAust's website, [www.panaust.com.au](http://www.panaust.com.au).

The 2016 financial report was independently audited by PricewaterhouseCoopers in accordance with the Australian Auditing Standards and submitted to ASIC in April 2017. Independent limited assurance is provided by Materiality Counts in relation to six non-financial material issues of this Report (see page 80 for the Assurance Statement for issues covered), to meet the requirements of G4 Core.

Through PanAust's Minerals Council of Australia (MCA) membership, the Company supports the Extractive Industries Transparency Initiative (EITI); a global initiative to improve governance in resource-rich countries through the verification and full publication of company payments and government revenues from oil, gas and mining. PanAust reports payments to governments in its financial report, and business review and sustainability report (see page 39). The Phu Bia Mining Annual Business Review provides a summary of key content of both reports tailored to and translated for Laos stakeholders.

## FORWARD-LOOKING STATEMENTS

This document includes certain 'forward-looking statements'. All statements, other than statements of historical fact, included herein, including without limitation, statements regarding forecast production performances, potential mineralisation, resources and reserves, and future expansion plans and development objectives of PanAust Limited are forward-looking statements that involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements.

*A detailed index of the GRI indicators and where they are reported – fully, partially or not reported – for 2016 can be found on PanAust's website, [www.panaust.com.au/reports](http://www.panaust.com.au/reports).*

*To provide feedback on the 2016 Business Review & Sustainability Report, go to [www.panaust.com.au/reports](http://www.panaust.com.au/reports).*



**PanAust values openness  
and transparency in its  
business activities.**

The Ban Houayxai process plant at dusk



## MANAGING DIRECTOR'S REVIEW



2015 was a pivotal year for PanAust as we recorded strong business performance and transitioned to ownership by Guangdong Rising Assets Management (GRAM). In 2016, we did even better. Our strong business performance positioned us *Way Ahead* of our own expectations with new production and safety records achieved.

2016 was a year of milestones as we made significant advances towards achieving an investment decision for the Frieda River Copper-Gold Project in PNG. We also extended our presence in Southeast Asia by establishing a new exploration front in Myanmar.

True to PanAust's value of open communications (see Vision and Values on page 11), this GRI G4, independently assured, 2016 *Business Review & Sustainability Report* demonstrates our ongoing commitment to identifying and managing material issues, and to the transparent public reporting to PanAust's stakeholders.

PanAust's foremost priority is to operate a successful business that benefits our owner, GRAM, and our key stakeholders, including employees, local communities and governments in the countries where we work. At PanAust, a successful business is one where economic and sustainability outcomes are pursued in a complementary manner, where excellence in one underpins, encourages and facilitates excellence in the other.

PanAust is committed to excellence and leading practice in all its business endeavours, including our operating activities, our community development initiatives, our environmental stewardship, our health and safety outcomes, and our employee engagement. The 2016 performance outcomes reflect the management and workforce commitment to this 'whole of business' philosophy. Our superior results across all key business measures reflect both the extensiveness of our endeavours and their integration to satisfy stakeholder expectations for our business outcomes.

PanAust's business spans a range of countries with differing levels of development, and, legal and regulatory environments. Our success has largely been governed by PanAust standards that reflect the Company's values and are consistent with, or better than, international leading practices. Wherever it has a presence, PanAust maintains high standards that are informed by a risk-based approach to materiality on specific issues.

PanAust's overarching corporate strategy is focused on consistently meeting performance targets for existing operations in conjunction with pursuing long-term growth by discovery, acquisition and development. PanAust's sustainability credentials are considered to be a strategic advantage in its pursuit of growth into new jurisdictions where it is important to establish relationships with governments and communities that are strong and supportive of PanAust's presence from the outset.

As a Company, we place special emphasis on maintaining and improving our safety performance. Our people are fundamental to our business success and we strive to ensure that they incur no harm through their daily work for us. Testament to this is how year-on-year, we have bettered the challenging safety targets we had previously set for ourselves. For example, by year-end 2016, PanAust had achieved 18 months without a lost time injury (LTI) and PanAust's flagship Phu Kham Operation had achieved an exceptional 21 months LTI-free. As a company with activities spanning mining, processing and logistics operations, exploration and project construction in remote, mountainous, high-rainfall locations in developing countries, this is a remarkable result. It reflects a safety culture that is embedded



Company-wide and is characterised by proactive and visible leadership to eliminate the potential for harm at all levels within the Company. The Executive Team recognises the ongoing need to strive harder firstly to maintain the current safety performance results, and secondly, to continue to elevate them to an even higher level. Our safety outcomes will always be a key measure for the success of our business.

Complementing our superior safety performance, PanAust is proud of its environmental and social record. This has been recognised internationally through a number of awards since commencement of operations in Laos. Following its award for 'Most Profitable Carbon Reduction Activity' at the 2015 CDP Australian Climate Leadership Awards, PanAust was once again selected as an award finalist in 2016.

In May, PanAust successfully completed its three-yearly recertification audit confirming full compliance with the requirements of the International Cyanide Management Code. This renewal reflects our strong sustainability standards and is indicative of the Company's approach to managing both environmental risks and maintaining industry-leading practices.

PanAust's Lao subsidiary, Phu Bia Mining, was able to improve on its 2015 landmark achievement of 90 per cent localisation of the workforce by reaching 91 per cent in 2016. In a country where local mining skills and experience were not available when PanAust commenced development of Phu Kham less than a decade ago, this continual improvement in Lao localisation demonstrates our commitment to providing a lasting legacy through our successful training and development programs.

The Company continues to achieve significant benefits in the communities closest to our operations through direct employment and a range of community development fund (CDF) projects which, to date, exceed US\$4.1 million. One of the greatest flow-on benefits from our presence is the contribution we make to poverty reduction in these communities. It is pleasing that our latest socio-economic survey results confirm the number of people living below the poverty line in these communities has reduced from approximately 55 per cent to 18 per cent since 2008.

Furthermore in March 2017, PanAust was honoured to receive the Lao PDR Labour Order Class 1 medal from the Government of Laos. The medal recognised the Company's outstanding contribution to upgrading road infrastructure in the Khammouane Province, and our contribution to the broader socio-economic development in Laos.

In January, we were granted three Exploration Licences in Myanmar. This was a great outcome for the Company, opening up a new jurisdiction where our regional experience gained in Laos can be applied. We now look forward to working with the government and local communities in Myanmar as we pursue our exploration program in that country.

In October, Phu Kham and Ban Houayxai once again achieved the maximum Caterpillar '5-star Contamination Control Facility' rating for their mobile maintenance workshops and associated supply facilities. Only one other operating site worldwide can match this outstanding level of achievement.

Our maintenance teams enthusiastically strive to be Way Ahead by applying the best systems in conjunction with the highest standards of housekeeping and compliance to procedures. This dedicated focus on contamination control has resulted in industry-leading levels of machine availability and reliability which now form the platform for our excellent and efficient production outcomes.

Throughout 2016, we made significant steps in advancing the Frieda River Project towards a final investment decision. In May, we announced the completion of the feasibility study, followed in June by submission of a Special Mining Lease application. Chief Mining Warden's hearings were completed in November and the Environmental Impact Statement (EIS) for the Project was lodged in December. The Project has achieved consensus support from all relevant landowning communities as it has progressed through each approval stage completed to date. Our intention is to maintain this ongoing support of host communities, including those along the Sepik River, through transparent and effective stakeholder engagement, targeted community development programs and capacity-building initiatives, commensurate with the level of development.

The Frieda River Project has been identified as the potential catalyst for the development of nation-building infrastructure in a least developed part of PNG. As such, it offers the potential to transform the well-being of many people. We look forward to working with our stakeholders in PNG and internationally to realise our vision for the Frieda River Project.

The year was not without its challenges, particularly in terms of depressed metal prices. Nonetheless, our superior production performance, coupled with improved cost performance outcomes, meant that we achieved a significantly higher net profit and cash flow compared to both our 2016 budget and our previous year's results.

On behalf of the PanAust Board of Directors and Executive Management Team, I sincerely thank all employees for their whole-hearted commitment to our values and the way this has translated into the continuing success of our business. The impressive results we have achieved, particularly during a time of depressed commodity prices, makes me very proud to lead such a capable team of people.

With a more positive, though still cautious, outlook for commodity prices in 2017, we will continue to focus on the key elements of the business within our control: safety, production, cost and strategic growth opportunities. We are determined to remain Way Ahead.



**Managing Director, Dr Fred Hess**

## 2016 HIGHLIGHTS AND FUTURE CHALLENGES

	HIGHLIGHTS	
Economic Performance	<p>Several annual production and cost performance records were achieved at both Phu Kham and Ban Houayxai through improved productivity and reliability rather than through additional capital investment.</p> <p>PanAust submitted the Frieda River Project feasibility study, Special Mining Lease Application and Environmental Impact Statement (EIS) to the Government of PNG.</p> <p>PanAust established a presence in Myanmar following the grant of three Exploration Licences in Sagaing Region.</p>	
Governance	<p>PanAust established an internal Governance Committee to monitor and review policies, standards and internal controls.</p> <p>Strong commitment to leading practice transparency as a private company including publishing quarterly activity reports and disclosing material sustainability matters to G4 Core.</p>	
Social Performance	<p>Phu Bia Mining accounted for over 4.4 per cent of the 2016 Laos real gross domestic product (GDP) which, in 2016, was US\$14.5 billion.</p> <p>A total of US\$349,190 was expended on 44 small-scale community development fund (CDF) projects in Laos and US\$108,000 on health, education and capacity-building programs in PNG.</p> <p>An extensive engagement program was completed in PNG including successful Mine Warden hearings in host communities and the Sepik River Awareness Program.</p>	
Environmental Performance	<p>The Ban Houayxai Operation retained its International Cyanide Management Code accreditation confirming that it continues to operate in full compliance with the Code requirements.</p> <p>Decommissioning and rehabilitation of the heap leach gold plant was well advanced, resulting in a significant reduction in the operational footprint at Phu Kham.</p> <p>PanAust was once again a finalist in the 'Most Profitable Carbon Reduction Activity' category at the 2016 CDP Australian Climate Leadership Awards.</p>	
Health and Safety	<p>PanAust Group TRIFR and LTIFR continued to be significantly better than industry averages, and bettered the Company's 2016 annual targets.</p> <p>Lead indicator programs were expanded to include Planned Task Observations and the five safe behaviours program. The executive team continued to drive safety values through leadership of the deep dive audit program.</p> <p>PanAust established a fatigue committee comprised of operational general managers and senior managers from across the business to address all issues related to fatigue.</p>	
Our People	<p>Phu Bia Mining achieved 91 per cent localisation in Laos including the promotion of 391 Lao-national employees, and a reduction in the number of expatriate employees</p> <p>PanAust launched the 'Leading the PanAust Way' leadership development program, and a new learning management system.</p> <p>PanAust celebrated its 7th Annual Employee Awards which recognised outstanding employee contributions to safety, sustainability, training and development and production outcomes toward the ongoing success of the Company.</p>	

OPPORTUNITIES AND CHALLENGES		
Maintain strong business performance and positive cash flow through the metal price cycle.	Economic Performance	
Maximise returns from existing assets while continuing to advance the Frieda River Project to a final investment decision.		
Secure and grow replacement production for Lao assets.		
Embed PanAust's Governance Committee processes, and continue stewardship of high-risk activities.	Governance	
Manage stakeholder expectations and implement robust governance processes in PNG and Myanmar.		
Progress social closure strategies for Laos operations in conjunction with project stakeholders to reduce mine dependency and ensure a successful future transition.	Social Performance	
Manage expectations and engage frequently with host-country stakeholders during periods of market volatility and depressed copper prices.		
Continue robust stakeholder engagement and capacity-building in PNG to progress the approval of the Frieda River Project and facilitate opportunities for government to government initiatives to enhance the Project and enable other regional development.		
Continue to manage sediment and erosion control risks that are prevalent in the mountainous and high-rainfall setting of PanAust's operations and exploration activities.	Environmental Performance	
Progress environmental and social closure plans for Lao operations and final landform design for the decommissioned heap leach pad.		
Identifying further opportunities to improve energy efficiencies within the business.		
Vigilantly work to grow and enhance the Company's safety culture and achieve Zero Harm to our people.	Health and Safety	
Continue to work with local contractors to enhance their safety culture and meet PanAust's contractor management standards.		
Leverage highly developed systems and procedures in Laos to develop the Company's safety culture in PNG and Myanmar.		
Implement the 'Leading the PanAust Way' leadership program at managerial, superintendent and supervisory levels.	Our People	
Continue development of the Lao-national workforce to increasingly operate, maintain and manage the Company's operations in Laos to international standards.		
Attract and retain high-calibre staff in the lead up to mine closure in Laos and complete employee engagement survey.		



## EXECUTIVE MANAGEMENT TEAM AS AT 01 JANUARY 2017

### PanAust Corporate

Dr Fred Hess, Managing Director

Mr Andrew Price, Chief Financial Officer

Mr Simon Milroy, General Manager Corporate Development and Exploration

Mr Paul Scarr, General Counsel

Mr Adrian Bell, General Manager Human Resources and Risk Management

Mr Geoff Kernick, General Manager Commercial

Ms Qingshan (Laurinda) Zhang, Company Secretary

### PanAust Asia Business Unit

Mr David Reid, General Manager Operations

Mr Richard Taylor, General Manager External Affairs and Site Support

### Project Development Business Unit

Dr Peter Trout, Executive General Manager Technical Support and Studies

Mr Glen Connell, General Manager Government and Community Relations, PNG

Mr Scott Cowie, General Manager Technical Services

See PanAust's website for profiles of the members of PanAust's current Executive Management Team [www.panaust.com.au/management](http://www.panaust.com.au/management)



The PanAust Board in front of the Phu Kham open-pit (left to right) non-executive directors Mr Qian Deng and Mr Gang Yu; Managing Director, Dr Fred Hess; Chairman, Dr Lixin Wang and non-executive director, Mr Minzhi Han

## PANAUST'S VISION AND VALUES



Mining Training Supervisor, Phongsavanh Mahakhot at the Phu Kham pit

### PANAUST'S VISION

PanAust is a growth-oriented mining company determined to excel.

### PANAUST'S MISSION

Discover, acquire, develop, operate and enhance a portfolio of copper-gold assets that create shareholder value.

### PANAUST'S VALUES

#### ► High-performance outcomes in all that we do.

- Our employees are performance-focused with clear task definition, measurement and accountability.
- We constantly seek to improve performance and are committed to supporting employee development. Individual results and merit form the basis for performance-based pay and promotion.

#### ► Respect for people

- Respect through our commitment to our employees' health and safety through our Zero Harm safety objective and treating employees with consistency and fairness.

- Respect for the environment through best practice environmental performance that reflects the expectations of the communities in which we operate and promotes an internal culture of environmental and social awareness.

- Respect in the way we manage our daily business activities for the people and cultures of our host countries.

- **Integrity** in all of our dealings with employees, communities, government, suppliers and shareholders.

- **Excellence in communications** with all stakeholders but especially with our employees. We seek fair, honest and transparent dealings with our employees and stakeholders through open, two-way communication.

- Recruitment of **high-calibre people**, recognising the key to our success will be leaders who earn the authority of their position by gaining the respect of their team. We offer an encouraging and stimulating work environment, providing the necessary individual training and development to enable all employees to operate effectively.

- **Alignment of employees** to Company objectives through good leadership and systems that drive the right behaviour.

# ECONOMIC PERFORMANCE

## OPERATIONAL PERFORMANCE

PanAust achieved outstanding operational results during 2016 with several annual production and cost performance records achieved at the Phu Kham and Ban Houayxai operations. Consolidated annual metal production included a record 89,187 tonnes (t) of copper in concentrate, 217,482oz of gold in concentrate and doré, and 1,636,591oz of silver in concentrate and doré. Importantly, the production and cost records were achieved through the improved performance and productivity of employees and increased reliability of existing equipment rather than through additional capital investment.

Excellent safety outcomes for 2016 underpinned PanAust's record production throughout the year. At the end of 2016, the PanAust Group had achieved 18 months without an LTI and PanAust's flagship Phu Kham Operation had achieved an exceptional 21 months without an LTI.

The outstanding safety performance reflects the Company's commitment to Zero Harm and the success of targeted safety programs which focus on hot spots and lead indicators. When viewed together with the exceptional production and cost outcomes, it is clear that PanAust's proactive safety culture is a key driver of operational success and was an integral factor to the Company's economic strength by year-end 2016.

PanAust's operational excellence can, in part, be attributed to its superior maintenance programs. The Phu Kham and Ban Houayxai mobile maintenance workshops and associated supply facilities maintained their Caterpillar 5-Star Contamination Control Facility ratings in 2016. Phu Kham and Ban Houayxai are two of only three workshops worldwide that have this rating\*.

Much of 2016 was characterised by ongoing weakness in the copper price which dipped below US\$2.00/lb per pound early in the year and remained depressed until November when a rally in the copper price above US\$2.50/lb occurred and was sustained into early 2017. Gold prices exhibited considerable volatility during 2016 ranging from a low of US\$1,088/oz to a high of US\$1,361/oz.

Despite the depressed copper price, PanAust's superior production performances, coupled with improved cost performance outcomes, meant that the Company achieved a significantly higher net profit and cash flow compared to both the 2016 budget and the 2015 result.

The way ahead for PanAust in 2017 will be to focus on and further refine elements of our business that are within our control – safety, production, cost performance and strategic growth opportunities.

## PHU KHAM COPPER-GOLD OPERATION, LAOS (PANAUST 90 per cent)

Phu Kham is PanAust's flagship operation and is located within the Company's Phu Bia Contract Area in northern Laos.

The Operation comprises an open-pit mine feeding ore to a conventional milling and flotation operation which produces a copper and precious metals concentrate for export to custom smelters mainly in Asia. The concentrate contains between 23 per cent and 25 per cent copper, up to 9g/t gold and up to 60g/t silver. Phu Kham's concentrate is trucked in covered containers with 80 per cent transported to the ports of Vung Ang or Hon La in Vietnam (approximately 650 kilometres from Phu Kham) with the remaining 20 per cent trucked to Sriracha Harbour in southern Thailand (approximately 1,000 kilometres from Phu Kham) for export.

### Mining and processing

Record production and cost performances were achieved during 2016 at the Phu Kham Operation.

Total material mined was an annual record of 57.0 million tonnes (Mt) and included 20.3Mt of ore (2015: 55.8Mt and 17.8Mt respectively). Over 19.1Mt of ore was milled, marginally lower than the record achieved in 2015 (19.2Mt) and 19 per cent above nameplate capacity. The process plant achieved a record 79.9 per cent metallurgical recovery for copper as grades and ore quality improved in conjunction with further advances in automatic process control in grinding and flotation circuits (2015: 77.4 per cent).

The Operation produced an annual record 89,187t of copper (2015: 78,449t). The average C1<sup>i</sup> cost was a record low of US\$1.10/lb copper (2015: US\$1.30/lb) after precious metal credits from 89,657oz of gold and 535,198oz of silver. The all-in sustaining cost (AISC<sup>ii</sup>) was a record low of US\$1.60/lb copper (2015: US\$1.69/lb). The lower gold output when compared with the previous year reflected the lower scheduled gold grade of ore processed.

The annual production of copper in concentrate is expected to peak at approximately 85,000t to 90,000t in 2018 and 2019 before subsequently declining with ore grade. No further development capital is currently expected to maintain these production levels. Production of gold in concentrate is expected to range between 70,000oz and 80,000oz per annum.

The Phu Kham Ore Reserve supports a mine life of approximately four years from the end of 2016.

i Brook Hunt convention for the reporting of direct costs comprising: mine site, product transportation and freight, treatment and refining charges and marketing costs; based on payable metal content after by-product credits

ii AISC reported are the C1 cost plus royalties, allocated corporate support charges, shared services costs, sustaining capital; lease principal and interest charges; and deferred mining and inventory adjustments capitalised

\* As confirmed by Caterpillar Southeast Asia, April 2017



In 2016, both Phu Kham and Ban Houayxai achieved several annual production and cost performance records.

► Mining ore in the Ban Houayxai open-pit



## ECONOMIC PERFORMANCE (CONTINUED)

### PHU KHAM COPPER-GOLD OPERATION PRODUCTION STATISTICS

	12 months to 31 December 2015	12 months to 31 December 2016
Ore milled (t)	19,185,752	19,105,184
Copper grade (%)	0.53	0.58
Gold grade (g/t)	0.33	0.28
Silver grade (g/t)	1.90	2.20
Concentrate produced (dmt)	340,308	384,275
Copper in concentrate (t)	78,449	89,187
Gold in concentrate (oz)	102,464	89,657
Silver in concentrate (oz)	483,174	535,198

### BAN HOUAYXAI GOLD-SILVER OPERATION, LAOS (PANAUST 90 per cent)

Ban Houayxai is located approximately 25 kilometres west of Phu Kham and comprises an open-pit mine feeding ore to a conventional 4Mtpa carbon in leach (CIL) and gravity recovery process plant.

#### Mining and processing

Record annual production and cost performances were achieved at the Ban Houayxai Operation during 2016.

Total material mined was an annual record at 13.2Mt (2015: 12.5Mt) and included 5.3Mt of ore (2015: 5.3Mt). Over 4.7Mt (2015: 4.9Mt) of ore was processed which was 18 per cent above nameplate capacity.

The Operation produced an annual record 127,825oz of gold and 1,101,393oz of silver in doré (2015: 119,152oz and 1,181,068oz respectively). The average C1 cost after silver credits was a record low of US\$450/oz gold (2015: US\$516/oz) and the AISC was US\$662/oz gold (2015: US\$687/oz).

The Ban Houayxai process plant maintained its International Cyanide Management Institute (ICMI) Cyanide Code\* accreditation during 2016.

The Ban Houayxai Ore Reserve supports a mine life of approximately five years from the end of 2016.

### BAN HOUAYXAI GOLD-SILVER OPERATION PRODUCTION STATISTICS

	12 months to 31 December 2015	12 months to 31 December 2016
Ore milled (t)	4,941,391	4,703,191
Gold grade (g/t)	0.91	1.01
Silver grade (g/t)	13.06	12.32
Gold in doré (oz)	119,152	127,825
Silver in doré (oz)	1,181,068	1,101,393

### GROWTH OPPORTUNITIES: EVALUATION AND EXPLORATION

#### FRIEDA RIVER COPPER-GOLD PROJECT, PAPUA NEW GUINEA (PANAUST 80 per cent)

During 2016, the Company achieved three major milestones towards its goal of securing a final investment decision for the Frieda River Project.

The feasibility study for the Project was completed in May. In June, an application for a Special Mining Lease (SML) was registered with the Mineral Resources Authority (MRA) of PNG. In December, the Environmental Impact Statement for the Project was completed and lodged with the Conservation and Environment Protection Authority (CEPA) of PNG. The EIS was prepared by Coffey Environment Australia to an international standard on behalf of the Project joint venture participants. The Statement is the statutory basis for the environmental assessment for the Project.

Collectively, the Frieda River deposits are amongst the largest ten undeveloped copper-gold deposits in the world. The combined Horse-Ivaal-Trukai, Ekwai and Koki (HITEK) Mineral Resource is estimated at over 2.64 billion tonnes at an average grade of 0.44 per cent copper and 0.23g/t gold and contains approximately 12Mt of copper and 19Moz of gold. PanAust considers that the optimum approach to this substantial Mineral Resource is via a multi-staged development that involves an initial project that forms the platform for subsequent phases of exploration, Mineral Resource definition and development.

The feasibility study contemplates an initial project based on the HITEK copper-gold porphyry deposits and comprises a large-scale, open-pit mining operation that feeds ore to a conventional process plant with a nominal processing capacity of 40Mtpa. Average annual production of metal in concentrate is 175,000t copper and 240,000oz gold over the initial mine life, estimated at 18 years.

During 2017, PanAust will work to maintain its excellent relationships with communities and government in order to advance the Frieda River Project through the formal government permitting and approvals stage.

#### MYANMAR EXPLORATION LICENCES, MYANMAR (PANAUST 80 per cent)

Myanmar represents an opportunity for PanAust to expand its presence in Southeast Asia.

PanAust holds an 80 per cent interest in Wuntho Resources Company Limited (WRCL), a joint venture with Myanmar Energy Resources Group International Company Limited (MERG), a Myanmar-based company, which holds the remaining 20 per cent of WRCL.

In January 2016, following approval by the Government of Myanmar Cabinet and President's Office, WRCL was granted

\* The International Cyanide Management Code For the Manufacture, Transport, and Use of Cyanide in the Production of Gold (Cyanide Code) was developed by a multi-stakeholder Steering Committee under the guidance of the United Nations Environmental Program (UNEP) and the then International Council on Metals and the Environment (ICME).

three Exploration Licences in Myanmar. The Exploration Licences comprise three tenement blocks – Hel Chain, Pin Hin Hka and Nam Awl – which provide the Company with a 600 square-kilometre contracted area. The area is located in Sagaing Region of northern Myanmar and is prospective for copper and gold. A program of geochemical sampling and mapping commenced in 2016 and data analysis continues with the aim of identifying potential drill targets.

#### PHU KHAM DISTRICT EXPLORATION, LAOS (PANAUST 90 per cent)

During 2016 exploration activities in the Phu Kham district transitioned into early stage generative and target identification work. An airborne electromagnetic survey of the Company's 2,600 square-kilometre Phu Bia Contract Area identified a number of geophysical anomalies in the northwest-southeast trending volcanics between the Phu Kham and Ban Houayxai operations. These anomalies will be investigated in 2017.

#### KTL COPPER-GOLD PROJECT, LAOS (PANAUST 90 per cent)

Desktop work and a program of environmental rehabilitation were undertaken in 2016. No material site activities are currently being undertaken or are planned.

#### INCA DE ORO COPPER-GOLD PROJECT (PANAUST 66 per cent), CARMEN (PANAUST 100 per cent), CHILE

PanAust completed a feasibility study on the Inca de Oro Project in 2014. No material site activities were undertaken at Inca de Oro or the nearby Carmen deposit in 2016 or are planned.

#### TARGETED ACQUISITIONS

PanAust continues to search for opportunities to invest in copper and gold projects globally. The Company is targeting advanced projects that are in production or can be brought into production within a few years, and are of suitable scale, long-life and low-cost.

### FINANCIAL PERFORMANCE

PanAust's consolidated net profit after income tax (NPAT) for the year to 31 December 2016 was US\$51.4 million (2015: US\$4.8 million). An impairment review of operational assets undertaken in 2016 resulted in no impairments being recorded for the year.

Sales revenue from ordinary activities increased year-on-year to US\$716.0 million (2015: US\$657.7 million) driven by an 11 per cent increase in sales of copper in concentrate which more than offset the lower average copper price realised. Lower sales of gold in concentrate were partly offset by a higher average realised gold price received together with increased sales of gold in doré.

The average prices realised, after hedging, for sales during 2016 were US\$2.25/lb for copper, US\$1,245/oz for gold and US\$17.2/oz for silver (2015: US\$2.38/lb, US\$1,162/oz and US\$15.4/oz respectively).

### Cash flows and sales

Net cash inflow from operating activities was US\$218.6 million (2015: US\$137.8 million). Sales revenue increased at both the Phu Kham and Ban Houayxai operations following record production performances which led to higher sales volumes and lower unit costs. At Phu Kham, sales of copper in concentrate increased to 89,187t (2015: 78,449t). Sales of gold doré at Ban Houayxai increased by seven per cent to 127,825oz.

Both Phu Kham and Ban Houayxai achieved record low C1 and AISC costs. The cost decreases were achieved through increased copper and gold production, lower processing costs, site-support and realisation costs, and higher precious metal credits.

#### OPERATIONAL COSTS YEAR-ON-YEAR COMPARISON

	2015	2016	Variance (%)
Phu Kham C1 cost (US\$/lb copper)	1.30	1.10	-15
Phu Kham all-in sustaining cost (US\$/lb copper)	1.69	1.60	-5
Copper (US\$/lb)	2.38	2.25	-6
Ban Houayxai C1 cost	516	450	-13
Ban Houayxai all-in sustaining cost (US\$/oz gold)	687	662	-4
Gold (US\$/oz)	1,174	1,237	5

There was no capital expenditure on major development projects in Laos in 2016 (2015: nil).

Expenditure during the year on the Frieda River Project in PNG totalled approximately US\$34.3 million (2015: US\$45.5 million) and included feasibility study and permitting costs, drilling program, exploration access track works, corporate support and site-based activities.

### Balance sheet

At 31 December 2016, PanAust had cash of US\$158.6 million (2015: US\$115.8 million); debt of US\$54.5 million (2015: US\$102.8 million); and mobile equipment lease facilities fully drawn to a total of US\$21.1 million (2015: US\$57.0 million).

### Reporting compliance

As an unlisted public company, PanAust continues to lodge an audited Annual Report (including Financial Statements) with ASIC and fulfills reporting and compliance obligations in accordance with its debt facility agreements.

Reflecting the Company's Values in relation to 'excellence in communication', PanAust publishes activities reports on a quarterly basis on its website; see [www.panaust.com.au/](http://www.panaust.com.au/) company-announcements.



# GOVERNANCE

## SUSTAINABILITY STRUCTURE

PanAust has in place robust corporate governance frameworks, systems and standards that are underpinned by the Company's values and a culture of continuous improvement.

Since transitioning from a publicly listed company to a subsidiary company of GRAM, PanAust has continued to recognise the value of, and reap the rewards from, an integrated approach to managing sustainability. The Company has retained, and where necessary, enhanced its governance foundations to ensure it achieves its long-term vision and mission as well as its annual targets.

### THE PANAUST BOARD OF DIRECTORS

The Board of Directors is the highest governance body within PanAust. The positions of Chairman and Managing Director are held by different persons. Apart from the Managing Director, all other members of the Board, including the Chairman, are non-executive directors.

The Board is responsible for decision-making on economic, environmental and social impacts.

The PanAust Board provide a culturally diverse team to support the business and has a range of skills and competencies including: financial and mining qualifications, base metal experience, commercial and financial risk management experience, operational experience, development and construction expertise, capital and financial planning experience, and international development experience in developing countries.

The Board is supported by an external advisory panel made up of four external advisors, three of whom were previously Board members of PanAust when it was a publicly listed company. The panel provides high-level independent professional advice on PanAust-related matters. The advisors, with their knowledge and familiarity of PanAust and the metals industry, provide expertise in the areas of project development, operational management and sustainability issues. They have a thorough understanding of PanAust's strengths and essential skill sets to advise on key business objectives and managing challenges.

### PANAUST BOARD MEMBERSHIP AS AT 31 DECEMBER 2016

BOARD MEMBER	POSITION	DATE APPOINTED
Dr Lixin Wang	Chairman and Non-Executive Director	Appointed 6 July 2016*
Dr Fred Hess	Managing Director	11 November 2014
Mr Gang Yu	Non-Executive Director	7 July 2015
Mr Qian Deng	Non-Executive Director	7 July 2015
Mr Minzhi Han	Non-Executive Director	7 July 2015
Mr Zezhong Li	Chairman and Non-Executive Director	Resigned 6 July 2016

\* Dr Lixin Wang was appointed a Non-Executive Director of the PanAust Board on 7 July 2015 and was appointed Chairman on 6 July 2016.

The profile of each PanAust Board member can be found on the PanAust website, [www.panaust.com.au/directors](http://www.panaust.com.au/directors).

The PanAust Board of Directors and the PanAust Executive Management Team are responsible for ensuring effective measures, systems and controls are in place in relation to managing:

- Environmental, community, occupational health and safety, human resources and other sustainability-related issues and incidents that may have material strategic, business and reputational implications for the PanAust Group and its stakeholders.
- Reporting by PanAust in accordance with the Global Reporting Initiative (GRI) sustainability reporting guidelines or other reporting standards approved by the Board of Directors.

Periodically, the PanAust Board of Directors visits Company operations and sites to strengthen their understanding of the PanAust business and to view business and sustainability activities first hand. In June 2016, the PanAust Board visited the Lao operations and logistics facilities. Board members also met with relevant Government of Laos ministers and interacted with representatives from local communities during the visit.

### GOVERNANCE COMMITTEE

To further enhance governance standards, PanAust established a Governance Committee in 2016. The Committee is responsible for the oversight, development, implementation and review of corporate governance policies and standards that apply to the PanAust Group. The Committee's inaugural meeting was held in the fourth quarter of 2016. In 2017, four meetings are scheduled to monitor and review policies, standards and controls for finance, legal, corporate governance, human resources, risk and sustainability. The Governance Committee reports its outcomes to the Executive Committee on a quarterly basis.

PanAust continues to recognise the value of and reap rewards from an integrated approach to sustainability.

► 777D hauling ore at Ban Houayxai above the Nam Ngum reservoir



## GOVERNANCE (CONTINUED)

PanAust is proud of its sustainability performance which has been recognised internationally through several awards.

► An aerial view of operations in the Phu Kham open-pit; drilling and in-pit sampling for ore and waste prior to handling



## REMUNERATION STRATEGY

PanAust seeks to attract, engage and retain high-calibre employees to meet the Company's current and future business needs. PanAust's objective in structuring remuneration for its senior executives is to nurture a performance-based culture where competitive remuneration, benefits and rewards are aligned with PanAust's objectives, and where merit and achievement form the foundation of performance-based pay and promotion.

Remuneration is linked to quantitative lead and lag targets against which sustainability performance is measured at all levels of the organisation. These targets reinforce sustainability performance as a key component of the Company's culture. At an executive level, sustainability performance accounts for 15 per cent of the short-term incentive component of at risk remuneration.

## EXTERNAL STANDARDS, PRINCIPLES AND GUIDELINES

PanAust measures its sustainability performance against international standards and commissions independent audits to evaluate its performance.

PanAust endeavours to comply with the following standards, systems and principles.

- The International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (applied to PanAust's operating assets): [www.ifc.org](http://www.ifc.org). Through PanAust's annual IFC audit process, the Company aligns with the Equator Principles.
- The Minerals Council of Australia's (MCA) Enduring Value\* which aligns with the International Council on Mining and Metals' (ICMM) Sustainable Development Framework Principles: [www.minerals.org.au](http://www.minerals.org.au), [www.icmm.com](http://www.icmm.com).
- Alignment with the ICMM's Principles on climate change policy design: [www.icmm.com](http://www.icmm.com).
- The International Cyanide Management Code (the Code) is a voluntary industry program administered by the International Cyanide Management Institute (ICMI) for the gold-mining industry that promotes the responsible use of cyanide; PanAust has been a signatory to the Code since 2011 for its Ban Houayxai Operation in Laos: [www.cyanidecode.org](http://www.cyanidecode.org).
- The GRI sustainability reporting framework and guidelines; PanAust reports the GRI indicators that are material to its business as determined through its risk management approach and materiality determination process (including feedback from stakeholders: [www.globalreporting.org](http://www.globalreporting.org)).

- The Voluntary Principles on Security and Human Rights (VPSHR); a set of principles designed to guide companies in maintaining the safety and security of their operations within a framework that encourages respect for human rights; PanAust has been a member company of the VPSHR since 2013 (see page 67): [www.voluntaryprinciples.org/](http://www.voluntaryprinciples.org/)

## EXTERNAL RECOGNITION

PanAust is proud of its sustainability and operational performance and has been recognised internationally through several awards. A full list and description of the Company's awards can be found on PanAust's website, [www.panaust.com.au/sustainability](http://www.panaust.com.au/sustainability).

Following its award for Most Profitable Carbon Reduction Activity at the 2015 CDP Australian Climate Leadership Awards, PanAust was again selected as a finalist in the same category in 2016. In March 2017, PanAust was honoured to receive the Lao PDR Labour Order Class 1 medal from the Government of Laos. The medal recognised the Company's outstanding contribution to upgrading road infrastructure in the Khammouane Province and our contribution to broader socio-economic development in Laos.

## BUILDING A SUSTAINABILITY CULTURE

PanAust's approach to sustainability has its foundations in the Company's Vision and Values, and in *The PanAust Way* (the Company's code of conduct).

PanAust's Sustainability Policy (available on the Company website at: [www.panaust.com.au/sustainability](http://www.panaust.com.au/sustainability)) outlines the Company's commitment to workplace health and safety, host communities, environmental management, and the application of ethical business practices and corporate governance standards. The policy includes a commitment to continuously improve sustainability management and performance.

Sustainability is implemented through visible leadership and people management, induction and ongoing training and awareness sessions, strict observance of high-quality corporate governance standards, excellence in financial management, outstanding technical expertise, and supportive processes and systems.

Fourteen Sustainability Standards relating to PanAust's key outcome areas are applied across the business (see PanAust's website for more information, [www.panaust.com.au/sustainability](http://www.panaust.com.au/sustainability)).

Sustainability performance forms part of the Executive Management Team's Five-Year Strategic Plan and critical tasks for each year. The General Manager Human Resources and Risk Management is the executive-level position with responsibility for risk management, human resources and sustainability across the PanAust Group and reports directly to the Managing Director.

► \* PanAust is an associate member of the MCA and a signatory to its 'Enduring Value – The Australian Minerals Industry Framework for Sustainable Development'. The framework commits companies to upholding fundamental human rights and respecting cultures, customs and values in their dealings with people affected by their activities. As an associate member of the MCA, PanAust is committed to applying operational standards globally that are consistent with Australian operational standards, while accommodating variations as a result of cultural, geographical or environmental circumstances in Laos, Papua New Guinea, Thailand and Chile. Note, full MCA membership requires Australian based assets.

## GOVERNANCE (CONTINUED)

Each PanAust business unit is provided organisational structural support to manage sustainability through either a professional embedded within the department or a corporate-based role providing the requisite level of support.

The General Manager Human Resources and Risk Management facilitates an annual Risk and Sustainability Workshop with key executives, operational managers and sustainability support staff across the business. The annual workshop drives continuous improvement and Company-wide alignment to the management of material risks and sustainability. The workshops provide the opportunity for sustainability-related activities and progress to be reviewed and challenges to be tabled and discussed. A risk and sustainability plan is formulated at each workshop. Objectives and targets are set for the upcoming year and are subsequently incorporated into Company and individual performance targets and incentives. Performance against these targets is evaluated at the end of each year for short-term incentive payments and more broadly at the following year's workshop as part of PanAust's continuous improvement process.

PanAust's 2016 Risk and Sustainability Workshop was held in Vientiane (Laos) over two days in August and was attended by 39 employees representing PanAust corporate, Laos, PNG and Myanmar. Site representatives from four Lao contractor companies (earthworks, drilling and explosives providers) attended the first day of the workshop which was dedicated to engaging on the Company's risk and sustainability strategy, safety performance and safety initiatives. This included a dedicated session on contractor management with the aim of ensuring supply-chain engagement on material safety matters.

Human resources-related objectives and targets are reviewed and set at an annual Human Resource Workshop, also facilitated by the General Manager Human Resources and Risk Management. The workshop also serves as a key process to strategically embed PanAust's Vision and Values, sustainability and continuous improvement into the Company's operating culture.

The delivery of specific sustainability-related targets is the responsibility of operational line management who are accountable for outcomes as part of the PanAust Group Risk and Sustainability Annual Plan and Individual Achievement Plans.

### BUSINESS CONDUCT

PanAust is a company with a clear Vision and a strong commitment to growth and high-performance outcomes. To ensure Company activities are carried out legally, ethically, and with integrity and respect, the Company has a set of clearly stated and widely communicated values and a code of conduct, *The PanAust Way*. The values and code of conduct apply to every employee including directors and business partners including, but not limited to: contractors, consultants, suppliers and service providers working with or for the PanAust Group regardless of their position and location. *The PanAust Way* includes sections on human rights and anti-bribery and corruption. *The PanAust Way* is available on PanAust's website, [www.panaust.com.au/corporate-governance](http://www.panaust.com.au/corporate-governance).

PanAust's Vision and Values, and *The PanAust Way* are presented and distributed throughout the Company in English, Lao and Tok Pisin. Using examples and story-telling, key concepts are also frequently communicated through the employee newsletter, *Panorama*, to reinforce application of the principles.

Throughout 2016, *The PanAust Way* continued to be embedded into the Company's culture through new-employee induction training.

### NUMBER OF EMPLOYEES BY REGION TRAINED IN THE PANAUST WAY 2014-2016

REGION	2014	2015	2016
Laos	2,773	374	1,017
Australia	14	17	10
PNG	59	N/A*	40
Total	2,846	391	1,067

\* New employees were trained in *The PanAust Way* during induction; however, centralised reporting systems were not set up to capture data during 2015.

PanAust has internal controls and procedures in place to monitor for misappropriation of funds, bribery and corruption, and other code-of-conduct-related issues. Criminal history checks are incorporated into recruitment processes for key positions and security personnel.

In 2016, the Internal Control Management team conducted a number of internal reviews on fraud-preventative controls, project governance standards, delegation of authority limits, and key controls identified for financial risk and capital management. These reviews included a senior management-led fraud and internal controls deep dive audit on the procurement to pay (P2P) supplier selection process as well scoping for a SAP fraud diagnostics solution to be implemented in the March quarter of 2017.

A number of non-material incidents relating to breaches of *The PanAust Way* were investigated and confirmed during 2016 and resolved as per Company policy.

### ANTI-BRIBERY AND CORRUPTION

PanAust recognises that acts of corruption undermine the effectiveness and legitimacy of government institutions to the detriment of the general public and that such acts are illegal. PanAust strictly prohibits employees, directors and its business partners from making or receiving bribes or corrupt payments.

*The PanAust Way* sets out the Company's position in relation to anti-bribery and corruption, as well as guidelines relating to gift giving, anti-competitive behaviour and compliance with the law. While Australian law has an exception for facilitation payments, PanAust's code of conduct prohibits employees from making facilitation payments.





(Left to right) PanAust Managing Director, Dr Fred Hess and Frieda River Site Manager, Phil McCormack inspect the drill cores at the Frieda River Project site

PanAust employees, directors and business partners must also comply with the laws of the countries in which the Company operates. Under Australian law it is an offence for Australian companies, citizens and residents to bribe foreign public officials (Criminal Code Act 1995).

PanAust will not use third-party intermediaries to circumvent the application of the Company's strict prohibition of bribery and other corrupt payments.

For 2016, there were no (zero) instances of Company-related bribery and/or corruption reported to the Board or Executive Management Team. There were no fines or legal actions for anti-competitive behaviour, anti-trust or monopoly practices, nor did the Company receive any fines or non-monetary sanctions for non-compliance with law and regulation.

#### WHISTLEBLOWER STANDARD AND SERVICE

PanAust has in place a Whistleblower Standard and a Whistleblower Service to allow for reporting of any conduct that is contrary to *The PanAust Way*. The Whistleblower Service is available in both the English and Lao language, and a translation service is available for other languages for submissions made online, by email or message left via voice mail. Issues can be reported anonymously and employees are encouraged to use the service if they are uncomfortable raising issues through normal day-to-day reporting channels.

PanAust prohibits any form of retaliatory action against anyone for raising a genuine concern or for helping to address such a concern.

In 2016, five matters were reported through the Whistleblower Service. The allegations made related to dishonest and fraudulent behaviour, and general misconduct. By the end of January 2017, all five matters had been investigated and resolved.

PanAust's Whistleblower Service is available on the Company's website <http://www.panaust.com.au/corporate-governance>. Issues can be raised via the Whistleblower Service by mail, email, telephone and an online form <http://www.panaust.com.au/whistleblower-service>.

#### HUMAN RIGHTS

Human rights are basic rights and freedoms to which all people are entitled. Human rights apply to every person across the globe regardless of their birthplace, age, personal beliefs and/or any other individual attribute. PanAust supports and respects human rights consistent with the Universal Declaration of Human Rights.

Human rights encompass a broad range of issues in relation to PanAust's employees, contractors and suppliers, local communities, business partners and other stakeholders impacted by its operations. The Company understands that to manage human rights risks and realise opportunities, PanAust needs to build collaborative and transparent relationships with these key stakeholders across the mining life cycle. Where available, PanAust uses existing systems and processes for the assessment and management of human rights issues and as a minimum, PanAust meets applicable legal requirements in relation to human rights.

A summary of PanAust's approach to managing human rights is provided in the following table (which includes references to examples presented in this Report).

In 2016, PanAust recorded no breaches of indigenous people's or other human rights.



## GOVERNANCE (CONTINUED)

### PANAUST HUMAN RIGHTS MANAGEMENT APPROACH

Commitment	<ul style="list-style-type: none"> <li>• The PanAust Way</li> <li>• Sustainability Policy</li> <li>• Sustainability Standards</li> <li>• Member Company – Voluntary Principles on Security and Human Rights (see page 67)</li> <li>• Alignment to the ICMM Indigenous Peoples and Mining Position Statement</li> </ul>
	<ul style="list-style-type: none"> <li>• Human rights risk assessment</li> <li>• Human rights due diligence</li> <li>• Environmental Impact Assessment</li> <li>• Stakeholder analysis (including indigenous peoples, gender, vulnerable and disadvantaged)</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Workforce practices and feedback mechanisms</li> <li>• Stakeholder engagement (including disadvantaged groups) appropriate to the project and location context and the IFC Performance Standards (see page 19)</li> <li>• Supplier evaluations and contract clauses related to human rights (see page 23)</li> <li>• Project designs, development and closure consistent with cultural and social values of host communities</li> <li>• Grievance mechanisms, resettlement and compensation protocols (see page 36)</li> <li>• Community development (including opportunities to enhance the human rights of host communities, for instance, access to water and improved healthcare, education and livelihood opportunities) (see page 41)</li> <li>• Social and Environmental Management Plans</li> </ul>
	<ul style="list-style-type: none"> <li>• Periodic surveys (including socioeconomic, perception, employee surveys)</li> <li>• Periodic audits (see page 26: including deep dive audits and annual audits of Laos operations against the IFC Performance Standards, contractor audits)</li> <li>• Internal and external reporting</li> <li>• Whistleblower Standard and Whistleblower Service (see page 21)</li> </ul>
Act	
Check and report	

### SPONSORSHIPS AND DONATIONS

PanAust provides sponsorships and donations to programs, organisations or causes that build goodwill in operational areas and/or enhance relationships with key stakeholders.

Sponsorship and donation requests are assessed against the following priority areas:

- Projects located within the countries where PanAust has operating assets or project development
- Activities of national importance and symbolism
- Projects benefiting the people of the provinces and districts in which the Company is operating or present
- Projects promoting culture, history, society and ethnic minorities representative of the areas in which the Company operates
- Projects that support relevant sector government agencies' capacity-building

In Laos, Australia and PNG, sponsorship and donation committees have been established to transparently and consistently assess requests against the priority areas. Decisions are reviewed by an executive in each business unit.

Details of the sponsorship and donations administered across the Company in 2016 are provided on pages 41 and 42 of this Report. No financial or in-kind donations to political parties, politicians or related institutions were made by PanAust or any of its subsidiary companies in Australia, Laos, PNG, Thailand, Myanmar or Chile during 2016.

For more information about PanAust's approach to managing requests for sponsorship and donations, visit the Company's website [www.panaust.com.au/corporate-governance](http://www.panaust.com.au/corporate-governance).

## SUSTAINABILITY IN THE SUPPLY CHAIN

Building mutually beneficial relationships with suppliers and contractors creates a sense of shared value that benefits the broader community as well as the business.

*The PanAust Way* along with PanAust's Contractor Management Standard set the minimum expectations for suppliers and contractors in areas including safety, environment, community, human rights and operating with integrity. The safety systems and performance of local contractors in Laos is a material issue for the PanAust business (see page 62).

PanAust has risk profiled the Company's top-tier (by expenditure) suppliers, which represent approximately 80 per cent of direct supplied goods. Each supplier was risk ranked across a number of categories including safety, environment, compliance, and anti-bribery and corruption. The profiling highlighted that within the top-tier of the supply chain, PanAust engages reputable organisations whose systems and in-country legal obligations mean that the necessity for PanAust to further influence performance is either not required or is limited.

PanAust procures goods and services locally where practical and based on commercial competitiveness, risk profile and contractor/supplier capacity. Support of local business results in direct and indirect benefits to host communities and regional economies in Laos (see page 44). For this reason, PanAust acknowledges that its greatest supply chain responsibility is at a local level where it has the greatest ability to influence local suppliers and contractors.

In 2016, PanAust conducted awareness sessions on human rights expectations for local fruit and vegetable suppliers and distributed copies of *The PanAust Way* in Lao language in response to a potential gap identified in the 2015 IFC audit. An inspections program has also been implemented to confirm that local suppliers understand and work to relevant obligations.

## PRODUCT STEWARDSHIP

In Laos, PanAust produces copper concentrate, which is sold directly to international smelters or through traders. Gold-silver doré is sold directly to a refinery. The Company maintains an agency agreement with Cliveden Trading to market its copper concentrate. Given the volumes of product produced relative to the overall market size, PanAust has limited influence on the end-purchaser or end-product (copper cathode or refined precious metals). When a direct sales contract is placed with a smelter, due diligence is conducted to provide assurance on the customer's reputation, financial capability, and legal and business structure. Contracts are subject to PanAust's standard terms and conditions.

PanAust's product stewardship approach focuses on the storage and transport of concentrate from mine gate to port through to the delivery of product in such a way that it meets customer specifications and in-country requirements. PanAust owns and operates its own road transport fleet for concentrate movement



The Phu Kham processing plant at night

in Laos. PanAust's management systems and associated auditing processes are integral to the product stewardship approach and they include global positioning system (GPS) monitoring and tracking of product, and the use of escort vehicles on high-risk sections of the haulage route to enhance road safety and reduce the risk of concentrate spillage.

The market considers PanAust's copper-gold concentrate 'clean' and product metal specifications are incorporated in contract terms and conditions with international customers. The Company was in compliance with agreed contract specifications applied to product shipments during 2016. All trace elements, including arsenic, were in compliance with destination country maximum limits. PanAust engages directly with its customers through industry forums and office or site visits. In 2016, PanAust hosted a site visit to the Phu Kham operation for its customers with the majority of the smelter customers and traders represented. PanAust did not receive any customer complaints relating to product quality in 2016.

For more information about PanAust's product stewardship, visit the Company's website [www.panaust.com.au/corporate-governance](http://www.panaust.com.au/corporate-governance).

## GOVERNANCE (CONTINUED)

### RISK MANAGEMENT POLICIES, SYSTEMS AND PROCESSES

#### PANAUST'S APPROACH TO RISK MANAGEMENT

PanAust recognises that identifying and managing risk is integral to business management, improves the Company's profitability and protects and creates long-term value. PanAust uses risk registers, incident management systems and stakeholder feedback, combined with auditing and benchmarking processes to proactively identify, evaluate, prioritise and manage risks. The aim is to track and improve business performance.

PanAust fosters a risk-aware corporate culture. Materiality and risk tolerance are key considerations in all business decisions. Risk management is embedded throughout the business and mining lifecycle including PanAust's critical activities across all business functions and processes. The risk management framework is also applied when considering the business case for growth projects and entry into new jurisdictions. Risk assessments, and risk management plans are developed to ensure that potential reputation, legal, business, regulatory and political exposures are addressed and have appropriate mitigations embedded into business strategies and plans.

#### RISK MANAGEMENT POLICIES, FRAMEWORK AND PROCESSES

PanAust's Enterprise Risk Management (ERM) Policy outlines the requirement for an effective ERM system to identify and manage all material risks. The policy is publicly available through the Company website, [www.panaust.com.au/corporate-governance](http://www.panaust.com.au/corporate-governance).

During 2016, PanAust continued to focus efforts on integrating risk management into all business processes, projects in development, and due diligence activities.

PanAust's risk management procedures include clear criteria for materiality, and guidance on treatment and reporting measures. Procedures align with:

- the International Organization for Standardization's (ISO) ISO 31000 Standard on Risk Management
- the Company's Sustainability Standard 4, Risk and Change Management
- Principle 15\* of the Rio Declaration\* (the Precautionary Principle).

The PanAust Board of Directors, with support when required from the external advisory panel, carefully considers the level of risk it is prepared to tolerate.

PanAust's Board of Directors is responsible for ensuring that PanAust's systems of risk management and internal controls are in place through the PanAust Governance Committee.

PanAust's Executive Management Team guides corporate risk strategy and provides oversight of strategic issues. It is accountable for implementing the ERM framework

and monitoring effective implementation. The Executive Management Team has responsibility for a high-level risk register that identifies key material business risks relevant to PanAust at the Group level. Risk owners present to the PanAust executive team on the management of material risks through a peer review process. In addition, each General Manager has responsibility for operations and departmental or project risk registers and is required to have in place a plan to manage significant risks.

PanAust has a clear process for defining materiality. Group-level risks are defined as an event that results in a consequence Level 5 (or above), evaluated utilising the Company's Extended Consequence Table (available on PanAust's website, [www.panaust.com.au/corporate-governance](http://www.panaust.com.au/corporate-governance)) on the following basis:

- Would the risk be a significant material risk requiring public disclosure?
- Could the risk substantively influence the assessment and decision of stakeholders?
- Could the risk materially change the underlying value of the business?
- Given strong reliance on Phu Kham to fund development opportunities, could a production stoppage at that Operation cause a US\$5 million to US\$10 million impact on cash flow and EBITDA (equivalent to 10-14 days production)?
- By considering impacts on short, medium and long-term production and financial results, and impacts to health and safety, the environment, social outcomes, the Company's regulatory environment and its reputation.

PanAust has identified 15 Group-level risks that are material to the business. These include economic, environmental and social risk factors. Areas of non-financial risk factors that have been identified as material or potentially material to PanAust and its stakeholders are addressed in detail in this Report. Financial risks are outlined in PanAust's Annual Report which is submitted annually to ASIC as a component of the Company's regulatory obligations, and is available to the public on request.

Group-level risks were reviewed by executives in 2016. Risk issues relating to the Frieda River Project were elevated to the Group register given the timing and importance of the Project in the Company's growth pipeline and in recognition that the project design phase provides an opportunity to implement long-term strategic sustainability objectives. Multidisciplinary risk reviews were conducted for incorporation into the Frieda River feasibility study. The Environmental Impact Statement, including both environmental and social impact assessments, was completed during the year and was lodged with the Conservation and Environment Protection Authority of PNG in December 2016.

► \* Principle 15 of the Rio Declaration advises that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.





Ban Houayxai Senior Mining Supervisor, Mr Thongdy Sipaphay standing on the south lookout at the Ban Houayxai pit

#### PANAUST'S SUSTAINABILITY STANDARDS

PanAust carries out its activities in a manner consistent with international leading practices and in compliance with: the Company's Sustainability Policy and 14 Sustainability Standards; legal obligations (including environmental/social impact assessments for projects); and the IFC Performance Standards on Social and Environmental Sustainability. The requirements and obligations are applied through the Company's Environmental and Social Management Systems, and all PanAust employees and contractors are obliged to operate within these requirements.

PanAust's 14 Sustainability Standards apply across the Group and have been designed to provide a risk-based management system and auditable criteria against which each Operation's performance can be measured and continuous improvement implemented.

PanAust's operational performance is regularly assessed against the Sustainability Standards and external commitments. In 2015, a review of the Company's contractor management standard was completed and project governance guidelines for risk and safety were approved and rolled out throughout 2015/2016 including 13 audits of key contractors in 2016. The Company's Operations in Laos have well-developed discipline-specific safety standards which will be progressively elevated to Group standards in support of other regions where PanAust has development projects and/or potential future operations.

#### AUDITING AND BENCHMARKING

PanAust has established a corporate review and audit program to support its ERM programs. Some reviews are carried out internally while others require external or independent auditors.



## GOVERNANCE (CONTINUED)

PanAust recognises that identifying and managing risk is integral to business management, improves the Company's profitability and protects and creates long-term value.

► The Tailings Storage Facility at Phu Kham

## 2017 SUSTAINABILITY AUDIT PLAN AND 2016 PROGRESS

EXTERNAL/INTERNAL AUDITS	2016 PERFORMANCE	NEXT AUDIT
<b>ECONOMIC PERFORMANCE</b>		
Group financial audit	Completed annually and disclosed in PanAust's Annual Report to ASIC.	2017
External insurance audit	Completed to plan. Phu Kham continues to be rated in the low range and better than the world average for risk reductions. Ban Houayxai's risk reduction rating has temporarily been increased to 'moderate', which is in line with the global average for the mining industry, until a replacement SAG mill girth gear (currently being fabricated from the spare steel billet the Company holds) is installed in September 2017.	2017
<b>SOCIAL PERFORMANCE</b>		
International Finance Corporation audit (environmental and social)	Completed to plan. Lao operations maintained standards similar to the previous year (achieving 79 per cent for 2016 compared to 80 per cent in 2015). One non-conformance raised in 2015 was closed out, and only one non-conformance was raised in 2016 for which an action plan was developed.	2017
Socio-economic surveys	Review not due in reporting year.	2018
Community Development Fund reviews	Audit not due in reporting year.	2017
<b>ENVIRONMENTAL PERFORMANCE</b>		
Phu Kham acid rock drainage (ARD) external audit	Completed to plan. Knight Piesold (KP) and Environmental Geo-chemical International (EGi) undertook an external review of ARD management at Phu Kham and Ban Houayxai with one potentially material issue identified. An action plan had been developed (see page 52).	2017
ICMC operational recertification audit	Recertification audit was successfully completed in the March quarter. Next recertification audit due in 2019. An annual internal audit was also conducted. Progress on cyanide management is reported on page 53.	2019
Tailings Independent Review Panel (TIRP) and annual designers' tailings storage facility safety inspection	Completed to plan. The Panel noted its most important finding at Ban Houayxai was the establishment of good management practices for the construction, operation, monitoring and corporate governance for the TSF which had become integrated into site procedures and management methods. At Phu Kham, the TIRP recommended planning commence for the final closure spillway given their experience in designing and implementing such structures. This was well-progressed in 2016. An annual dam safety inspection was also completed to plan by the design engineer. Action plans have been established and well progressed to address the findings of each inspection. Action plan progress will be evaluated by the TIRP ahead of the 2017 wet season.	2017
<b>HEALTH, SAFETY AND SECURITY</b>		
Technical safety audits for high-risk activities and/or hotspots	Third-party aviation audits were completed for Laos and PNG providers (see page 66). Independent audit of fatigue management across Logistics operations. Ten deep dive audits were conducted by PanAust executives for safety hotspots and high-risk activities (details on page 62).	2017
Contractor safety management compliance reviews	Thirteen local contractors were prioritised for the audit and inspection program for Laos Operations. A combination of compliance reviews, risk register reviews and inspections were completed.	2017
Sustainability Standards internal benchmarking: Phu Kham, Ban Houayxai, Frieda River Project	Completed in conjunction with IFC audits in Laos. At the Frieda River Project, baseline requirements were incorporated into the EIS.	2017
Security setting and security management	An independent regional security review was completed by Control Risks in the June quarter. Gold Security Standards audit completed at Ban Houayxai by Secure Mining Solutions. Independent Risk and Vulnerability Assessments will be updated in 2017.	2017



## GOVERNANCE (CONTINUED)

### 2016-2019 PERFORMANCE AND STRATEGIC TARGETS

PANAUST 2016-2019 TARGETS (INCLUDES OVERARCHING PANAUST TARGETS, AND REGIONAL AND OPERATIONAL TARGETS)	RESULT	YEAR-ON- YEAR TREND	COMMENTARY 2016, REVISED TARGET 2017	TARGET DATE
<b>ECONOMIC PERFORMANCE</b>				
Achieve annual production guidance for copper and gold and all-in sustaining cost guidance for Phu Kham and Ban Houayxai	Achieved	Improvement	Annual outcomes for safety, production and costs were better than budgeted at both operating sites for 2016. PanAust delivered full year NPAT above budget at US\$51.4 million (budget US\$2.6 million).  2017 Budget is for production of copper in concentrate of 88,000t; gold in concentrate and doré of 178,000oz; silver in concentrate and doré of 1,292,000oz.  In 2017, the all-in sustaining cost budget by operation is: Phu Kham US\$1.73/lb copper and Ban Houayxai US\$780/oz gold.	2017-2019
Complete feasibility study, continue to add value to the Frieda River Project	Achieved	Improvement	SML application, incorporating the feasibility study, and EIS submitted to the Government of PNG. Construction of the exploration access track commenced to improve safety and access to the Project area and reduce reliance on rotary-wing aircraft. New target: complete Frieda River Project permitting phase and continue to add value to the Project.	2018
Obtain boundary change to Phu Bia Contract Area in Laos	In progress	Improvement	Countrywide screening of prospective areas and third party tenements completed. As advised by the Government of Laos, the revision of the Mineral Exploration and Production Agreement (MEPA) for the Phu Bia Contract Area will require negotiating an addendum to the concession agreement, and is expected to conclude by year end 2017.	2017
Progress exploration growth opportunities in Myanmar	Achieved	Improvement	PanAust Services (Myanmar) Company Limited became an incorporated business in Myanmar in June 2016. A stream sediment sampling program was completed at three prospects within the Wuntho 1 licence area. Applications for extensions to the Wuntho 1 block and for Wuntho 2 were submitted to the Government of Myanmar.	2017-2018
<b>GOVERNANCE</b>				
The PanAust Way embedded and implemented consistently across each worksite/geographical location	In progress	Improvement	A total of 1,067 PanAust personnel were trained in The PanAust Way in 2016. Governance requirements are embedded in contractor engagement processes and the inductions of all new employees and contractors. The PanAust Way training and Whistleblower Standards were rolled out in Myanmar. In PNG, a system was implemented to ensure The PanAust Way is delivered as a standard element of the site inductions.	2017
2016 Business Review & Sustainability Report prepared to G4 requirements	Achieved	Improvement	The Report was externally assured to G4 Core criteria for an unlisted public company.	2017
Establish Governance Committee	Achieved	Improvement	Executive Governance Committee Charter was approved and first meeting held with four meetings planned for 2017.	2017-2019
<b>SOCIAL PERFORMANCE</b>				
Community Development Fund (CDF) expenditure plan agreed with 80 per cent of funds committed to spend by year-end.	Achieved	Improvement	41 out of agreed 44 CDF projects were completed; three infrastructure projects were partially completed and funds carried over to 2017 (see page 42).	2016-2018
Develop and implement government affairs and community strategies to enhance and maintain positive relationships in country where PanAust has a presence.	In progress	Improvement	Strong government relationships were maintained and managed within Laos (including MEPA contract area adjustment), progressing Government of Laos Closure Committee, Vietnam (haulage and port), Thailand (haulage and port) and Myanmar.	2018
<b>ENVIRONMENTAL PERFORMANCE</b>				
No Level 3 environmental incidents	In progress	Improvement	No Level 3 environmental incidents; maintain target.	2016-2019
Company Erosion and Sediment Standard implemented	Achieved	Improvement	Standard implemented for exploration access track in PNG.	CLOSED

## 2016-2019 PERFORMANCE AND STRATEGIC TARGETS

PANAUST 2016-2019 TARGETS (INCLUDES OVERARCHING PANAUST TARGETS, AND REGIONAL AND OPERATIONAL TARGETS)	RESULT	YEAR-ON-YEAR TREND	COMMENTARY 2016, REVISED TARGET 2017	TARGET DATE
<b>ENVIRONMENTAL PERFORMANCE</b>				
EIS completed to an international standard and approved for each development project	Achieved	Improvement	Frieda River Project EIS lodged with the Conservation and Environment Protection Authority (CEPA) of PNG, December 2016	2017
Understanding energy and greenhouse gas emissions across the Group with a formalised improvement plan	Achieved	Maintained	Fifth report to CDP completed; carbon assessments and operational business efficiency plans in place for Lao sites. PanAust was again a finalist in the 2016 Australian CDP Awards for Most Profitable Carbon Reduction Activity (see page 55).	2016-2018
Progress closure planning for Laos operations	New		Laos Operations Closure Scoping Study completed. Decommissioning of infrastructure at the former Heap Leach Gold Operation was completed together with practical handover of agreed facilities to the district (see page 54).	2018
<b>HEALTH AND SAFETY</b>				
Zero Levels 4 or 5 incidents* on controlled work sites	Achieved	Improvement	Target continued.	2016-2019
TRIFR <1.35	Achieved	Improvement	2016 TRIFR of 1.15 Target# for 2017 of 1.33	2017
Address health and safety hotspots and close out actions assigned to the Senior Management Taskforce on Significant Incidents	Achieved	Improvement	All actions assigned to the taskforce were closed out. The taskforce is now focused on addressing proactive hotspots and implementation of deep dive audit findings.	2017
Advance Visible Safety Leadership Program	Achieved	Improvement	Ten deep dive audits of high-risk activities and hot-spots were conducted and led by general managers and executives involving a cross-section of relevant employees (30 since the program's inception in Q3 2014); planned task observations program rolled out in Laos.	2018
Crisis Management Plan and training in place for each work location with an annual Group co-ordinated simulation	Partially achieved	Improvement	Plans updated; training for PanAust Asia Business Unit completed. Maintain target. In 2017, focus on Frieda River Project and corporate training and simulations.	2017
Achieve 90 per cent implementation of Group Contractor Management Standard	In progress	Improvement	69 per cent of contract owners trained in the Contractor Management Standard revised in 2016. A focused effort in working with earthworks contractors to improve workshop and maintenance standards was implemented including company-provided resources to support improving contractor capacity.	2016-2019
<b>OUR PEOPLE</b>				
Conduct regular employee engagement surveys and implement findings	Partially achieved	N/A	The most recent employee engagement survey was completed in Q4 2013. Actions addressing feedback have been implemented over the past three years. A follow-up survey will commence Q2 2017.	2017
Improve Lao-nationals' development to enable promotion into roles previously filled by expatriates	In progress	Improvement	Achieved 91 per cent localisation in Laos. The 'Leading the PanAust Way' program commenced roll out in Q4 2016 and will be implemented to all manager and superintendent and supervisory level employees in 2017 (page 74).	2017
Improve technical trades training capability in Laos	In progress	Improvement	181 Lao employees have progressed from a 'trades assistant' level to 'tradesperson' level since 2014.	2018
Roll out governance, HR and training systems in PNG, and develop an employment and training plan to support the Frieda River feasibility study.	In progress	Improvement	HR standards were embedded and an HR information technology (IT) system implemented to provide visibility and reporting of people and position information (SAP and SuccessFactors). An employment and training plan was submitted as part of the Frieda River Project feasibility study and application for Special Mining Lease.	2018

\* A significant incident is a Level 4 or 5 impact from the PanAust Consequence Table (<http://www.panaust.com.au/sites/default/files/u12/PanAustConsequenceTable.pdf>)

# 2017 TRIFR target has increased from 2016 given an overall increase in the Company's risk profile



## SOCIAL PERFORMANCE

PanAust is committed to ensuring that its presence has an overall positive social impact on the host communities and countries in which it operates. The Company achieves this by meeting the global demand for resources in a socially responsible way, ensuring respectful and ongoing dialogue with stakeholders, recognising and supporting traditional rights and values and respecting cultural heritage. Testament to this commitment is the recognised improvement in socio-economic outcomes for host communities in Laos since PanAust's presence.

Partnering with, and generating value for, stakeholders including host communities, host governments and employees is essential for PanAust's growth and ongoing stakeholder support.

Host communities and countries obtain enduring benefits from PanAust's operations through: taxes and royalties, employment of local people, sourcing of goods and services locally, contributions to community infrastructure, training and capacity-building, and long-term economic and social development projects. PanAust's achievements have been recognised internationally through awards (refer page 19).

PanAust identifies the needs, issues and standards of living of local communities through stakeholder engagement, social impact assessments including socio-economic baselines and periodic updates (to understand diversity and priorities of stakeholders, indigenous and vulnerable peoples) as well as assessments of risks and opportunities.

PanAust's management systems and supporting processes provide the guidelines, tools and mechanisms to address negative social and environmental impacts whilst progressing business opportunities. The systems are aligned with the IFC performance standards and PanAust continues to use these standards to annually audit its social performance. The 2016 audit was the ninth audit for Phu Kham and the seventh audit for Ban Houayxai.

PanAust's community development funds enable communities to build long-term capacity and empower people to determine their own development priorities. The Company's community development plans consider host communities' needs, host countries' plans and the UN Sustainable Development Goals. The plans are developed in consultation with government authorities and community representatives and are backed up by the information obtained from socio-economic surveys. This approach ensures that the development projects meet the needs of the communities whilst aligning with government and/or aid agencies working in the region where appropriate.

PanAust has mechanisms built into its business practices to monitor and evaluate its engagement and development activities. Community concerns can be discussed directly with community relations staff or lodged through a complaint, grievance or request mechanism. Where PanAust's activities unavoidably impact livelihoods, compensation and mitigation schemes are activated.

PanAust's electronic reporting and corrective action event management system, InControl software (INX), captures all engagement activities, feedback, complaints, grievances and commitments, allowing the identification of trends, monitoring and management reporting.

### SOCIAL PERFORMANCE: MATERIAL ISSUES 2016

PanAust's materiality process identified the social performance focus areas for 2016 as:

- STAKEHOLDER ENGAGEMENT
- ECONOMIC VALUE GENERATED
- COMMUNITY DEVELOPMENT
- CLOSURE PREPAREDNESS

### STAKEHOLDER ENGAGEMENT

PanAust seeks to build collaborative and transparent relationships with key stakeholders.

The Company listens to and considers the views and concerns of these stakeholders in Company decision-making. Ongoing and open dialogue through informed consultation and participation with governments and host communities close to its operations, projects and activities enables PanAust to understand issues and identify opportunities for those directly and indirectly affected by its business activities.

PanAust's engagement processes provide for community participation and respect for traditional methods of decision-making. PanAust respects the principle of free, prior and informed consent (FPIC) to the greatest degree possible in development planning, engagement and implementation, while recognising that this intent does not contradict the right of sovereign governments to make decisions on resource exploitation. PanAust's position is consistent with the ICMM's Indigenous Peoples and Mining position statement.

At PanAust's Phu Kham and Ban Houayxai operations and its key pre-development project, Frieda River, the Company has in place stakeholder engagement plans which identify the interests and relationships of stakeholders. These plans contain a range of culturally and socially inclusive engagement activities which are designed in collaboration with stakeholders and consider the needs of vulnerable groups.

**PanAust seeks to ensure that its presence has an overall positive impact on the host communities and countries in which it operates.**

▶ A farmer stands in her lettuce garden at Ban Nam Mo; the lettuce grown on her farm is sold to the Phu Kham Copper-Gold Operation



## SOCIAL PERFORMANCE (CONTINUED)

During 2016, PanAust's stakeholder engagement activities included:

- A range of regular meetings with local communities, their nominated representatives (including representation by women) and other special interest groups.
- Community development programs: community members, local and district-level authorities are engaged in all stages of the planning, approval and delivery of community development activities.
- Community awareness campaigns: awareness campaigns in villages near operations and projects and along the main haulage routes, provide an effective avenue for engagement with government agencies and other stakeholders to reach a large audience on key issues. Campaigns in Laos in 2016 focused on general public safety related to entering the operations, quarterly mine tours at Ban Houayxai, cyanide awareness, burning season issues and geotechnical awareness. In PNG, campaigns focused on the grievance management process, mine development plans updates and Sepik River awareness.
- Reports: each year, PanAust's performance is comprehensively reported via this document (Business Review and Sustainability Report). An abridged version focused on Phu Bia Mining's activities is provided to key stakeholders in Laos (in English and Lao language). In addition, reporting to the Government of Laos occurs regularly.

### GOVERNMENT ENGAGEMENT

The Government of Laos is one of PanAust's principal stakeholders. A framework of regular scheduled and ad-hoc meetings with officials at central, provincial and district government level provide important opportunities for dialogue. A dedicated Government Relations Team is in place, with regular monthly and annual reports submitted on Company activities to the Government of Laos. A digital portal has been established to facilitate this process and ensure various government stakeholders can access the information they require. Officials from key government ministries are represented at both Phu Kham and Ban Houayxai to ensure transparency and mutual understanding, and close and productive relationships at the operational level. In addition, PanAust regularly engages senior Government of Laos representatives through meetings in Vientiane and site visits to operations. The approach builds confidence in the Company's performance.

For the Frieda River Project, the Company has an established presence in Port Moresby with a dedicated executive (General Manager Government and Community Relations PNG). A Joint Provincial Consultative Committee (JPCC) supports provincial level engagement. The JPCC comprises officials from the Sandaun and East Sepik provinces, as well as relevant district officials and national government agencies, including the Minerals Resources Authority.



Community Affairs Manager, Geoff Callister speaking with Sepik River communities during the Sepik River Awareness Program, September 2016

In Myanmar, two offices have been established, one in Yangon and one in Banmauk township (exploration office). These are supported by the PanAust General Manager External Affairs and Site Support. Government engagement occurs through quarterly Joint Committee meetings with the Department of Geology, Survey and Exploration. In addition, under the requirements of the Exploration Licence Agreement, PanAust is required to have two representatives from the Department based at the Banmauk exploration office.

### PANAUST'S STAKEHOLDERS AND INTERESTED PARTIES

The Company takes a diverse range of external and internal stakeholder interests and concerns into consideration in carrying out its business activities. Stakeholders are identified based on the potential impacts of the project on them and their potential impacts on the Company.

Stakeholder priority and importance differ across the material issues for each primary and secondary stakeholder group.

Engagement mechanisms are designed to provide stakeholders and other interested parties with an overall awareness of the Company's economic, governance and sustainability performance in addition to focusing on their specific areas of interest. The following table outlines key stakeholder groups, their interests and/or concerns and the issues on which PanAust engaged with them during 2016.

## STAKEHOLDERS AND INTERESTED PARTIES

STAKEHOLDER GROUP	ENGAGEMENT MECHANISMS IN 2016	ENGAGEMENT PRIORITIES
<b>PRIMARY STAKEHOLDERS</b>		
Employees (page 75 for more detail)	<ul style="list-style-type: none"> <li>• Regular site visits by the Managing Director</li> <li>• Team meetings (daily, weekly, monthly) and one-on-one interaction</li> <li>• Monthly employee briefings (Corporate)</li> <li>• Induction, training programs, awareness videos, career and professional development programs, English language training</li> <li>• Workforce planning meetings</li> <li>• Workplace representative committee</li> <li>• PKM and BHX radio station – fatigue management initiative</li> <li>• Employee engagement events, toolbox talks, posters</li> <li>• Panorama (Company-wide newsletter), intranet, videos, emails, alerts, noticeboards</li> <li>• Fair Treatment Process of appeal</li> <li>• Annual Employee Awards and Long Service Awards</li> <li>• Whistleblower Service</li> </ul>	<ul style="list-style-type: none"> <li>• Health, safety and wellbeing</li> <li>• Business performance</li> <li>• Project development activities and progress</li> <li>• Mentoring, training and development</li> <li>• Community contributions</li> <li>• Building local workforce skills</li> <li>• Maximising localisation</li> <li>• Retention as closure approaches at Laos mines</li> </ul>
Local landowners and host communities	<ul style="list-style-type: none"> <li>• Multi-stakeholder consultation and collaboration to agree on community development projects</li> <li>• Community development progress meeting at the village, district and provincial levels</li> <li>• Community response, including grievances</li> <li>• Involvement in what matters to the community, including local community events</li> <li>• Stakeholder database</li> <li>• Social values workshops, Community Leaders Forums, Sepik River Awareness Program, Joint Provincial Consultative Committee (PNG)</li> </ul>	<ul style="list-style-type: none"> <li>• Community development</li> <li>• Local capacity-building through training and education</li> <li>• Local employment and business opportunities</li> <li>• Closure planning</li> <li>• Enhancing public health</li> <li>• Poverty reduction, access to clean water, food security and infrastructure development</li> <li>• Operation and project development</li> <li>• Community safety</li> <li>• Grievance mechanisms</li> </ul>
Parent company, GRAM and Board of Directors	<ul style="list-style-type: none"> <li>• Board and scheduled meetings</li> <li>• Reporting (monthly, quarterly, annual)</li> <li>• Delegations and workshops</li> <li>• Site visits</li> </ul>	<ul style="list-style-type: none"> <li>• Growth pipeline</li> <li>• Financial returns and operating discipline</li> <li>• Funding strategy for growth</li> <li>• Risk management</li> <li>• Executive remuneration</li> </ul>
Project lenders (finance)	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Provision of audit report results</li> <li>• Tailored responses to queries</li> <li>• On-site technical reviews</li> </ul>	<ul style="list-style-type: none"> <li>• Long-term investor value and growth pipeline</li> <li>• Funding strategy for growth</li> <li>• Risk management</li> <li>• Environmental and social performance</li> </ul>
Joint venture (JV) and/or equity partnerships	<ul style="list-style-type: none"> <li>• Management committee meetings</li> <li>• Technical meetings</li> <li>• Tailored responses to queries</li> <li>• Monthly reports</li> <li>• Technical reports</li> </ul>	<ul style="list-style-type: none"> <li>• Financial returns, ability to service debt and operating discipline</li> <li>• Governance</li> <li>• JV expenditure, project progression, tenement requirements and statutory obligations</li> <li>• Safety and ESG performance, and stakeholder relationships including Sepik River awareness campaign</li> <li>• Disclosure requirements for JV partners including progress on permitting status (EIS, feasibility studies and associated warden's hearings)</li> </ul>



## SOCIAL PERFORMANCE (CONTINUED)

### STAKEHOLDERS AND INTERESTED PARTIES

STAKEHOLDER GROUP	ENGAGEMENT MECHANISMS IN 2016	ENGAGEMENT PRIORITIES
<b>PRIMARY STAKEHOLDERS</b>		
Governments	<ul style="list-style-type: none"> <li>• Communication with the GoL through the Government Relations Team</li> <li>• Scheduled and ad-hoc meetings and agreements with local, provincial and central/national government representatives and officials</li> <li>• Joint initiatives with government for community development</li> <li>• Site visits for government officials</li> <li>• Tailored responses to queries</li> <li>• Tailored publications – proactive approach, including ‘Frequently Asked Questions’</li> <li>• Online Laos Government Portal</li> <li>• Ad-hoc ministerial and department-level meetings by Company executives and the Managing Director</li> </ul>	<ul style="list-style-type: none"> <li>• Relationship management</li> <li>• PanAust Vision and Values</li> <li>• Permitting and exploration renewals</li> <li>• Progression of project approvals (including the Special Mining Lease application and EIS submission for Frieda River Limited)</li> <li>• Environmental compliance/management</li> <li>• Economic contributions and community development</li> <li>• Local employment and workforce localisation</li> <li>• Closure planning</li> </ul>
Customers (smelters and refineries, metals traders)	<ul style="list-style-type: none"> <li>• Regular communication with PanAust marketing</li> <li>• Technical support regarding product quality</li> <li>• Customer meetings</li> <li>• Representation at conferences including the London Metals Exchange ‘LME Week’, London and the Centre for Copper and Mining Studies ‘CESCO Week Shanghai’</li> <li>• Site visits</li> <li>• Product stewardship initiatives</li> <li>• Tailored responses to queries</li> </ul>	<ul style="list-style-type: none"> <li>• Reliability of supply and product quality</li> <li>• Product weights and measures, assay exchange</li> <li>• Logistics and product stewardship</li> <li>• Cost and delivery</li> <li>• Safety and ESG performance and good stakeholder relationship</li> </ul>
Contractors and suppliers	<ul style="list-style-type: none"> <li>• Request for proposals (RFPs) – and tendering</li> <li>• Regular performance review meetings – covering specific performance metrics</li> <li>• Price adjustment mechanisms – undertaken quarterly, six monthly and annually</li> <li>• Commodity price forecasting – value add by suppliers with access to price indices</li> <li>• Risk management – for one-off projects and where incidents occur</li> <li>• Participation in community workshops – by site-based contractors</li> <li>• Inductions, monthly contractor performance reports</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on major suppliers for operations - including mobile maintenance, truck fleet maintenance and explosives</li> <li>• Quarterly performance review meetings – covering specific performance metrics</li> <li>• Certified value guarantee – where suppliers provide innovation and efficiencies</li> <li>• Getting stakeholders together – addressing geographical and shift pattern challenges</li> <li>• Training for Contract Owners in the PanAust Contractor HSE Management Standard</li> <li>• Contractor HSE Management Plan development</li> <li>• Contractor safety WPIs, JSOs, hazard identification, inspections, audit and review</li> <li>• Contractor inductions</li> </ul>



Students celebrate 'cultural day' at the secondary school in Ban Nam Mo

## INTERESTED PARTIES

PRIMARY STAKEHOLDERS	ENGAGEMENT MECHANISMS IN 2016	ENGAGEMENT PRIORITIES
Industry associations	<ul style="list-style-type: none"> <li>• Association meetings</li> <li>• Committee participation</li> <li>• Joint initiatives</li> <li>• Presentations and correspondence</li> <li>• Site visits</li> <li>• Benchmarking visits to peer organisations and through participation in industry conferences</li> </ul>	<ul style="list-style-type: none"> <li>• Legislation</li> <li>• Education</li> <li>• Leading practice</li> <li>• Safety and ESG performance and good stakeholder relationships</li> </ul>
Media	<ul style="list-style-type: none"> <li>• One-on-one interaction with journalists, press releases</li> <li>• Company announcements</li> <li>• Hosted site visits</li> <li>• Respond when material errors are identified in factual reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Project development and operational status</li> <li>• Economic, health and safety and ESG performance including community development</li> </ul>
NGOs	<ul style="list-style-type: none"> <li>• Provision of company information to inform industry reports</li> <li>• Meetings</li> </ul>	<ul style="list-style-type: none"> <li>• ESG performance</li> <li>• Contract transparency</li> </ul>
Capital market participants (including investment banks, debt, equity and independent analysts)	<ul style="list-style-type: none"> <li>• Meetings and industry forums</li> <li>• Tailored responses to queries</li> </ul>	<ul style="list-style-type: none"> <li>• General industry performance and ESG benchmarking</li> <li>• Business opportunities</li> </ul>
Other mining companies, academics	<ul style="list-style-type: none"> <li>• Papers and presentations at conferences, meetings etc.</li> <li>• Site visits and study tours</li> </ul>	<ul style="list-style-type: none"> <li>• ESG performance</li> <li>• Benchmarking and good industry practice</li> </ul>



## SOCIAL PERFORMANCE (CONTINUED)

### COMMUNITY RELATIONS

Engagement mechanisms provide opportunities for men, women, youth and vulnerable groups to participate in consultation, community development and decision-making processes. Community Relations staff are employed from the main local ethnic groups enabling culturally effective communication between the Company and community members. Periodic and complementary socio-economic survey data, disaggregated by gender and ethnicity, combined with engagement feedback informs community development programs and assists in identifying and prioritising participation by vulnerable groups in their implementation. Phu Bia Mining also annually reports to the Government of Laos on the status of community development projects, which includes data on participation by women, the youth and vulnerable groups in the Company's community development fund program.

Engagement mechanisms are built into PanAust's business practices to monitor the impact of Company activities on affected communities and key stakeholders, and to evaluate engagement and development activities to enable continuous improvement. The Company's operations conduct periodic socio-economic surveys of household heads and community leaders to better understand issues and any movement in community living standards. The various surveys provide an important mechanism to build an understanding of the needs and expectations of host communities to inform priorities and initiatives, and to assess the extent that stakeholders believe their concerns are being effectively addressed.

### GRIEVANCE MANAGEMENT

PanAust has in place grievance mechanisms at its operations and for the Frieda River Project. Grievance mechanisms are designed to meet the intent of Principle 31 of the United Nations Guiding Principles on Business and Human Rights. Mechanisms are:

- legitimate, predictable, equitable and transparent
- culturally appropriate and based on dialogue and engagement
- accessible
- rights-focused
- accountable (with monitoring and evaluation, disclosure and annual reporting).

The Company's Grievance Management Procedure includes a mechanism for escalation and arbitration if required. Depending on the nature and severity of the concern raised, it may require further investigation or referral to an independent party.

PanAust continues to make significant progress in the timely management and close out of grievances in Laos. In 2016, two new grievances related to impacts to agricultural land were raised and closed out.

At the Frieda River Project there have been no grievances recorded to date.

### 2016 GRIEVANCES

GRIEVANCE MEASURE	NO. OF GRIEVANCES	NO. OF AFFECTED HOUSEHOLDS
2016 grievances	2	36
Grievances carried over from previous years	1	58
Total grievances progressed in 2016	3	94
Total grievances resolved	2	88
Total carried over to 2017	1	6

During 2016, PanAust had no disputes relating to indigenous people and customary rights.

### RESETTLEMENT, LIVELIHOOD RESTORATION AND COMPENSATION

PanAust aims to design work sites to avoid involuntary resettlement. This approach is consistent with the IFC Performance Standards 5 and 7: Land Acquisition and Involuntary Resettlement and Indigenous Peoples regarding resettlement of indigenous peoples on communal lands.

PanAust does not currently have operations or projects that involve resettlement.

The Company has in place protocols and procedures to avoid involuntary physical relocation and to minimise the negative impacts of economic displacement related to business activities through planning, participative land access and acquisition practices, transparent compensation and livelihoods restoration approaches. The Company would only consider relocation as a final option where no other technically feasible option is available, and, those impacted supported the approach.

The Company's compensation process is aimed at ensuring that project affected people are compensated fairly for loss of assets and/or production by maintaining, at a minimum, pre-impact standards of living, housing and livelihoods. Physical and economic displacement is managed using the Company's Compensation Standard, Grievance Management Procedure, and Consultation and Community Engagement Procedure. The Standard aligns with Lao regulations and international standards, such as those from the IFC and ICMM. The requirements for compensation become more prescriptive as the degree of impact increases. When significant impacts occur at the household level (that is, more than 20 per cent of household production), Lao regulations require livelihood restoration rather than cash compensation.

Compensation is paid in a transparent manner at an agreed and documented schedule of rates, via the grievance management process. Compensation rates are calculated based on market price surveys, provincial agreements and in consultation and/or with approval from local government and community leaders.

In 2016, a total of US\$488,901 was paid in compensation and remediation for economic livelihood impacts related to land. The amount included the final compensation payment for land impacted at the former Heap Leach Gold Operation as part of closure implementation (refer to page 46). At the Frieda River Project in 2016, a total of US\$145,036 was paid in relation to impacts on community land from construction of the exploration access track.

#### COMPENSATION PAID (US\$)

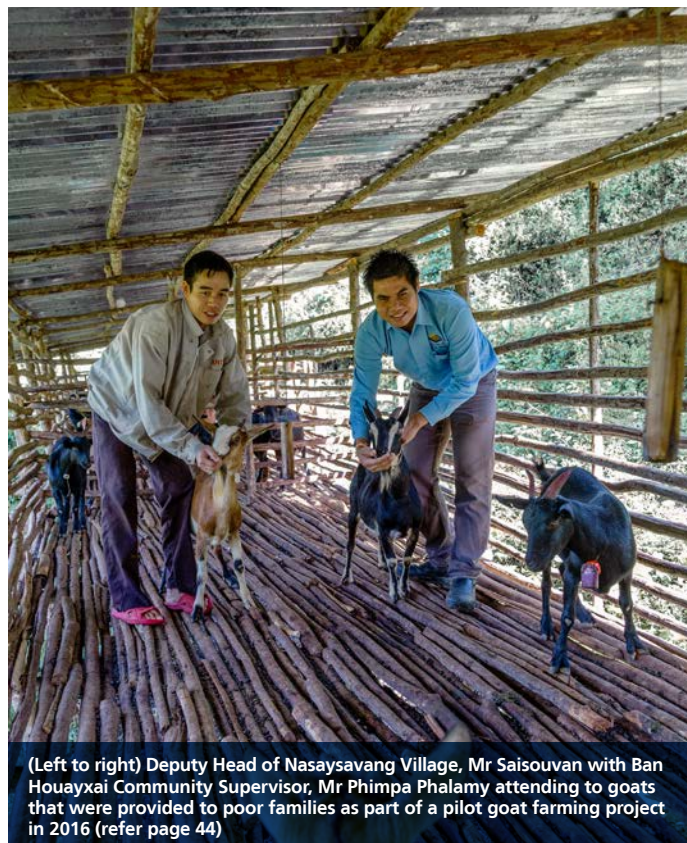
	2014	2015	2016
Laos	419,636	182,401	488,901
Papua New Guinea	-	-	145,036

#### ECONOMIC VALUE GENERATED

PanAust recognises its responsibility to make a positive social and economic contribution to the communities, regions and countries where it operates. The Company's philosophy is that wherever it operates, it collaborates with local authorities and communities to improve the socio-economic livelihood of the region around the six pillars of: infrastructure, health, education, agriculture, small business development, and village savings and credit funds.

PanAust has contributed to the Lao economy in many ways, including:

- Revenues from copper, gold and silver including payment of royalties
- Profit tax and other payments including tenement rental fees to the GoL
- Salaries paid to employees and salary taxes to provinces
- Training and skills development
- Capital expenditure in exploration, project development and project operating costs, particularly through payments to Lao suppliers of goods and services
- Investments in community development programs through community development funds
- Payment of dividends to the GoL as a ten per cent shareholder in Phu Bia Mining
- Investment in regional infrastructure including roads, water and sanitation
- Sponsorship and donations
- Local procurement of goods and services.



To serve PanAust's Laos-based activities, where appropriate, the Company engages local companies (Lao and international companies based in Laos). In doing so, PanAust takes into consideration commercial competitiveness, risk profile and contractor capacity to provide a service in a safe and responsible manner.

To date, approximately US\$1.38 billion has been invested in Laos (this represents the expenditure on physical assets and exploration). This amount includes PanAust's 2016 expenditure of US\$1.9 million towards public road infrastructure and maintenance along the Company's logistic route and regional roads in proximity to the Company's operations. Since 2006, public road infrastructure expenditure by PanAust in Laos is more than US\$58.5 million. Improvements and maintenance of the Phu Kham haulage route have benefited 11 villages with a combined population of 16,000 people, providing faster access to markets and public services including hospitals and schools for local people.



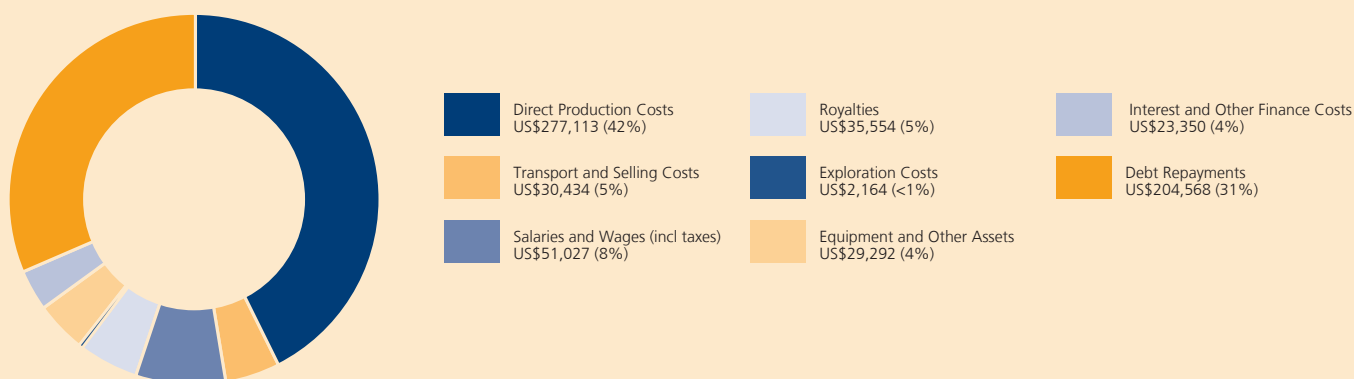
## SOCIAL PERFORMANCE (CONTINUED)

Total Phu Bia Mining activity, taking into account investments and in-country operating expenditure, accounted for over 4.4 per cent of Laos' real gross domestic product\* (GDP) which, in 2016, was US\$14.5 billion. This investment does not take into account the indirect impacts of the Company's presence, for which there is a widely accepted and typical multiplier effect of around 2.5 from mining projects in developing countries^ such as Laos.

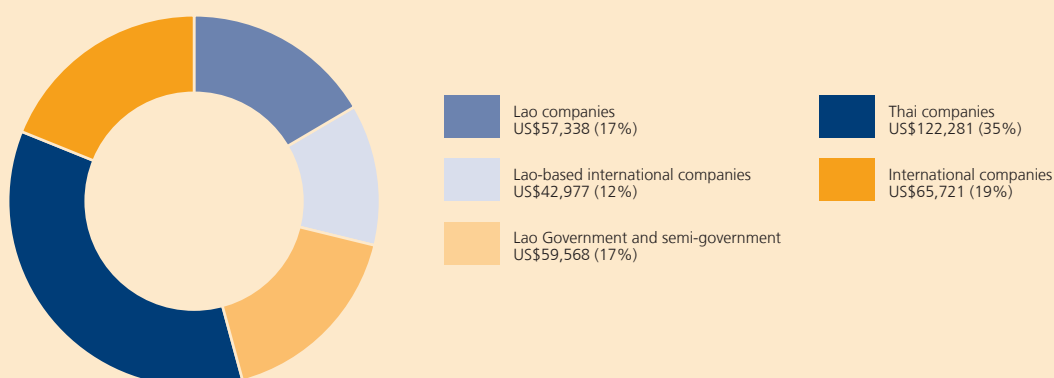
During 2016, PanAust's other economic contributions to Laos included:

- payment of US\$160 million to Lao suppliers of goods and services
- contribution of approximately US\$67 million to the Government of Laos (see table opposite)
- contribution to capacity-building programs and activities at district, provincial and central government levels
- employment of 3,249 people in Laos; by year end, 91 per cent were Lao-nationals, with 30 per cent of total employees in Laos coming from local villages (adjacent or in close proximity to PanAust's operations)
- administering a sponsorships and donations program in Laos (in addition to the community development program), donating US\$26,800 to a wide range of recipients through cash and in-kind donations
- Phu Bia Mining revenues of US\$716 million for the sale (and export) of copper, gold and silver in 2016 represent 26 per cent of total Lao goods exports (estimated by the Economist Intelligence Unit as US\$2,705 million).

### 2016 TOTAL PAYMENTS BY PANAUST ASIA (US\$000):



### 2016 PAYMENTS FOR GOODS AND SERVICES BY PANAUST ASIA (US\$000):



\* Based on the 'expenditure approach' of calculating GDP where GDP can be derived as the sum of all final expenditures, changes in inventories of finished goods, work-in-progress and raw materials, and the value of exports of goods and services less the value of imports of goods and services. In this context, final expenditures comprise final consumption expenditure and gross fixed capital formation. These expenditures are equivalent to final demand and the measure is commonly referred to as GDP-expenditure approach.

^ Sources: ICMM publication, The role of mining in national economies, 2012; World Bank and IFC Publication, Large mines and communities: forging partnerships, building sustainability, 2002.

## DIRECT ECONOMIC BENEFIT TO GOVERNMENT OF LAOS

DESCRIPTION	US\$000		
	2014	2015	2016
Payroll tax	5,472	4,693	4,240
Customs excise (import service fee)	1,846	2,784	1,739
Road tax <sup>^</sup>	2,966	4,258	4,477
Profit tax (income tax)**	8,235	1,182	16,188
Royalties	35,374	37,365	35,554
Concession fees	59	59	59
Value added tax paid upfront*	15,420	14,217	12,057
Value added tax deducted from profit tax*	(15,420)	(14,217)	(12,057)
Fuel import duty and excise tax	5,113	7,587	9,869
Fuel import duty and excise tax deducted from profit tax*	(5,113)	(7,587)	(9,869)
Cross border tax paid upfront	78	899	1,513
Cross border tax deducted from profit tax*	(78)	(899)	(1,513)
Dividend	4,310	4,800	4,500
<b>Total contribution</b>	<b>58,261</b>	<b>55,141</b>	<b>66,757</b>
<b>Copper price (US\$/lb)</b>	<b>3.05</b>	<b>2.38</b>	<b>2.25</b>

\* In accordance with the MEPA, PBM is exempt from value added tax and all import duties and excises and these are offset against profit tax in the year in which they are incurred; for the years 2014 and 2015, these payments exceeded profit tax payable and accordingly are treated as a prepayment against future profit tax.

<sup>^</sup> An error was identified where road tax was omitted from previous reports. This has been addressed for the 2014, 2015 and 2016 data.

\*\* In 2016, the Company initiated a strategy to reduce the prepaid profit tax balance by direct deduction of royalties and other payments to the Government of Laos.

## DISTRIBUTION OF PANAUST GROUP REVENUE 12 MONTHS TO 31 DECEMBER 2016 (US\$000)

REGION	OPERATING COSTS BY REGION	EMPLOYEE WAGES AND BENEFITS BY REGION	PAYMENTS TO PROVIDERS OF CAPITAL BY REGION	PAYMENTS TO GOVERNMENT BY REGION
Laos	359,031	51,027	3,819	54,252
Thailand	745	127	1	-
Vietnam~	-	-	-	-
Chile	1,225	1,323	1	-
Myanmar	264	44	2	-
PNG <sup>^</sup>	204	-	-	1,034
Australia	9,190	18,030	6,181	673
<b>Total</b>	<b>370,659</b>	<b>70,551</b>	<b>10,004</b>	<b>55,959</b>
<b>Group revenue*</b>				<b>703,596</b>
<b>Group economic value retained#</b>				<b>196,423</b>

\* Sales revenue, derivative gains/losses and other income

<sup>^</sup> Operating costs only. Does not include payments to government, employee wages and benefits, depreciation or capital projects. Note: PNG costs (with the exception of taxation payments to government) are capitalised. In 2016 US\$33,241,000 was capitalised against the Frieda River Project.

~ PanAust does not incur employee wages and benefits for Vietnam as personnel in this region are engaged as contractors

# Group economic value retained calculated by Group revenue less Group operating costs, employee wages, payments to providers of capital and payments to government.



## SOCIAL PERFORMANCE (CONTINUED)

**PanAust has invested over US\$4.1 million into community development programs in Laos since 2008.**

▶ (Left to right) Phu Kham Senior Community Development Officer, Mr Khamsamay Vongpanya with Ban Nam Mo snake bean farmer, Mrs BounLuæ Syvanla



## COMMUNITY DEVELOPMENT

PanAust's community development program aims to make meaningful contributions to building long-term community capacity, thereby empowering people to determine and progress their own development priorities beyond the life of the Company's operations. All operational and active development projects support community development programs in line with good international practice.

In PNG, the Company contributed US\$108,000 to community development programs with a further US\$277,000 associated with the use of helicopters to deliver these programs to Frieda River communities which are inaccessible by road.

In 2016, these programs focused on improved health and education services and capacity-building. Health assistance was delivered in collaboration with Telefomin District Health and the Papua New Guinea Baptist Church Health Services, and focused on the seven mine area landowning communities. Programs included the provision of National Supplementary Immunisation Activities, the delivery of Community Outpatient Clinics, attending to medical emergencies and evacuations and referrals of patients to regional health facilities. Support was also provided to Interplast to carry out the first surgical assessments of villagers with conditions potentially rectifiable by plastic and reconstructive surgery.

Education assistance was delivered in cooperation with Telefomin District Education and the boards of various local schools. Activities included school improvement programs, provision of materials for maintaining and upgrading infrastructure, logistics support to teachers and their families, and school fee assistance for students.

During the year, sponsorship of US\$2,000 was provided to the Zonta Brisbane Breakfast Club towards the cost of packing birthing kits for distribution to women in developing countries, to assist the provision of a clean and safe birth. One of the main recipients of the birthing kits is remote Papua New Guinean communities. Representatives and their families from the Brisbane office participated in the day where almost 12,000 kits were packed. The birthing kit holds supplies (a sheet, soap, gloves, cord, scalpel and gauze) to meet the seven basic requirements for a clean birth and potentially saves the life of a mother and baby in a rural or remote community.

In Myanmar, in response to a severe storm that hit Banmauk Township, PanAust made a US\$2,000 donation to assist with materials for rebuilding efforts. PanAust also donated US\$20,000 in medical equipment for the Monywa Hospital in Sagaing Region, Myanmar, the location of PanAust's Exploration Licences. The equipment donated consisted of defibrillators, cardiac monitors, syringe pumps and ultrasound machines.

As part of its broader sustainability commitments, PanAust continues to assess other socially responsible projects that fit within its host-community development priorities of capacity-building and promoting economic independence.



The Interplast team at work at the PNG village of Ok Isai

### Interplast support for Frieda River communities

PanAust has collaborated with Interplast in Laos since 2012. The program provides life-changing surgical treatment to people who would otherwise not be able to afford access to such services. Since the collaboration commenced, 1,631 people have received consultations, of whom 772 have undergone surgery. Excellent feedback has been received from the people and communities who have benefited from the program.

In 2016, PanAust extended this collaboration to support Interplast through a round of surgical assessments of villagers in communities close to PanAust's Frieda River Copper-Gold Project. The week-long visit took the Interplast team, along with PanAust Community Affairs personnel, to the villages of Paupe, Wabia, Ok Isai, Oum 3, Iniok, Sokamin, Fiak and District capital Telefomin. The team carried out surgical assessments of villagers who presented with conditions relating to plastic and reconstructive surgery, met with community leaders and compiled patient data. A follow-up surgical campaign will be implemented in 2017.

Interplast have been working in PNG since 1985, delivering surgical and training programs in Port Moresby and across the districts in partnership with local hospitals, government and universities. Interplast Chief Executive Officer, Prue Ingram spoke of Interplast's partnership with PanAust.

"Working with PanAust in PNG has enabled Interplast to reach communities it has not previously worked in, and is further extending the reach and impact of its training of medical professionals across the country," Prue said.



## SOCIAL PERFORMANCE (CONTINUED)

### PANAUST TOTAL COMMUNITY DEVELOPMENT CONTRIBUTIONS

CONTRIBUTION* (US\$'000)	2014	2015	2016
Community development Laos	528	348#	349
Community development PNG	28	63	108
Logistics costs associated with PNG Community Development	-	-	277
Community development Chile	169	105	0
Sponsorship and donations Laos	229	157	27
Sponsorship and donations PNG	-	1	26
Sponsorships and donations Myanmar	-	20	22
Sponsorship and donations Australia	78	1	6
<b>Total contribution</b>	<b>1,032</b>	<b>695</b>	<b>815</b>
PanAust adjusted earnings before interest, taxes, depreciation and amortisation (EBITDA)	194,244	174,342	242,409
<b>Total contribution as a percentage of EBITDA</b>	<b>0.53%</b>	<b>0.41%</b>	<b>0.34%</b>

\* Year-on-year contributions are not explicitly determined by the Company consolidated profit position and include a range of factors such as Company presence, impact, local capacity and reducing dependency levels as communities mature. 2014 and 2015 do not include in-kind and administration contributions towards community priorities or the purchase of locally produced consumables including fruit, vegetables and water. PanAust previously reported a donation of US\$1 million to the Asia Development Bank (ADB) in 2014 as the first instalment of a US\$6 million grant over six years towards the ADB's clean water project. The partnership did not proceed and in 2016 the donation was refunded to PanAust.

# 2014 contributions incorporated both significant carry-over and additional discretionary spending to accelerate priority social infrastructure projects, see page 56 of PanAust's 2014 Business Review & Sustainability Report.

### COMMUNITY DEVELOPMENT IN LAOS

The Company's community development programs support Laos in achieving its Sustainable Development Goals objectives by contributing to poverty alleviation in rural communities adjacent to its Operations.

Community development projects are managed in partnership with local communities and closely coordinated with local government authorities. In 2016, community development funds (CDFs) were in place at Phu Kham and Ban Houayxai with Memoranda of Understanding between PanAust and the Government of Laos defining coordination and management arrangements. CDF planning follows a process that begins with community-led needs assessments and a review of the socio-economic situation in each community.

Consultations are held with local government authorities to ensure alignment with national development strategies and goals, and to avoid duplication with existing or planned government initiatives. The Company and local government jointly approve the finalised annual community development plans. This approach distributes benefits appropriately and aligns with government and/or aid agencies working in the region.

In 2016, a total of US\$408,000 was budgeted for CDF activities in Laos: Phu Kham, US\$326,000 and Ban Houayxai, US\$82,000.

CDF programs in Laos in 2016 comprised 44 small-scale projects across rural communities directly and indirectly affected by PanAust's activities. A total of US\$349,190 was expended on CDF projects in Laos during the year. Focus areas were education, health, agricultural development, small business development, microfinance and infrastructure. The improvements to the gravity fed water systems at Ban Nam Gnone and Ban Nam Mo, Nasaysavang Primary School construction and the Nam Mo community market construction project were partially completed with remaining costs to be carried over into 2017.

### Education support – Frieda River

A School Improvement Program has been implemented in the host communities around the Frieda River Project to address the low levels of education. Due to the remoteness of these communities, it has historically been difficult to attain a full year of education as teachers were unable to reach the communities within the required times. To address this issue, PanAust provides transport assistance to teachers, as well as each School Board. In 2016, this resulted in both the Frieda River Primary and Fiak Primary Schools operating for a full academic year for the first time.

In 2016, PanAust paid the educational fees for school students from the project communities to attend the Frieda River Primary, Fiak Primary, Telefomin Secondary and Ambunti Secondary Schools. Students in tertiary level of education were also provided with financial support and transport assistance. PanAust also provided building materials for maintenance work at both the Frieda River Primary and Fiak Primary Schools.



Students at the Frieda River Primary School

**COMMUNITY DEVELOPMENT FUND TOTAL EXPENDITURE IN LAOS<sup>^</sup>**

AMOUNT (US\$)	2014	2015	2016
Expenditure	527,757	348,090	349,190*

\* Includes US\$132,917 that was spent in 2016 from 2015 CDF projects.

<sup>^</sup> Expenditure for CDF activities at KTL declined sharply between 2014 and 2015 as the project scaled down and there was no further expenditure in 2016.

The following section provides an overview of the Company's contribution to projects across the areas of education, health, infrastructure, enterprise development and access to financial services in Laos.

**COMMUNITY HEALTH**

Poor health is an issue in many rural communities in Laos. Contributing factors include a lack of quality healthcare services, poor hygiene and sanitation practices, limited health awareness, low rates of childhood immunisation and poor nutrition, underpinned by poverty.

In 2010, PanAust handed over community health clinics in Ban Nam Mo and Ban Nam Gnone to the District Health Office. Monthly statistics show that these clinics continue to be well-utilised by women, men and children.

In 2016, in addition to previous Company-established health clinics, PanAust contributed approximately US\$31,000 to community development health initiatives in Laos including the following:

- Mobile community health awareness programs in Ban Nasaysavang, Ban Nam Mo and Ban Nam Gnone attended by 3,225 residents during the year. These initiatives were provided in collaboration with the Anouvang District and the Longcheng public health offices.
- Mother and child health care education sessions in Ban Nam Mo and Ban Nam Gnone attended by 266 residents.
- Forty community health personnel attended training to enhance their knowledge of pregnancy care, child birth, care after birth, and treatment of various conditions including lung disease, general first aid, dengue fever and diarrhoea.



A health care centre in Nam Gnone Village

**Improved health outcomes for local communities in Laos**

PanAust is proud of the contributions that have been made to improve health around its operations and project sites.

Before PanAust's presence in Laos, local villagers had to travel up to 60 kilometres by dirt road to the Longxan Hospital to receive medical care. Now, through PanAust's community development programs, community health clinics are available in Ban Nam Mo and Ban Nam Gnone.

The latest socio-economic survey results from the villages around Phu Kham demonstrate a significant improvement in prenatal care since the 2003/2005 baselines. In 2015, 88 per cent of pregnant women received quality prenatal care at least once during their pregnancy compared to only 55 per cent receiving some level of care before the Phu Kham mine commenced operation.

All pregnant women that received prenatal care in the 2015 survey reported that they received the services from a doctor and/or nurse. This increase in rates of prenatal care has been positively influenced by improved access to health services and the availability of revolving funds to support health care costs at the district and village levels and mother and child health campaigns that are facilitated through the CDF programs.



## SOCIAL PERFORMANCE (CONTINUED)

### INFRASTRUCTURE PROVISION

PanAust has made significant contributions to various forms of infrastructure in Laos, including medical facilities, education and other building infrastructure, road development and maintenance, and water and sanitation systems. Expenditure for infrastructure projects is disclosed within the education, health, and enterprise development sections of this Report. The Company delivers infrastructure projects as much as possible in partnership with governments and local communities. Under this 'community-constructed infrastructure' model, PanAust procures the materials for the project, and local community members build the infrastructure themselves (where appropriate) with supervision from the local authority and Phu Bia Mining personnel.

Infrastructure provision in 2016 was predominantly related to school building improvements at Nasaysavang primary school and Ban Nam Mo lower secondary school. In addition, there was a focus on maintenance activities for existing infrastructure that has been provided through the CDF programs. It was recognised that village authorities do not have the financial means to maintain and repair this infrastructure. Strategies are being developed to capacity-build so that maintenance continues to occur beyond mine closure.

### ENTERPRISE DEVELOPMENT (SUPPORTING LOCAL BUSINESSES)

PanAust aims to build long-term capacity in communities through economic development and contributing to strengthening community resilience, rather than developing economic dependency.

The Company strives to source products and services locally and/or regionally. This approach encourages local suppliers to expand their customer base in preparation for the eventual shift to Company closure. Agriculture is an industry where local communities and farmers can build on their existing capabilities to supply PanAust's operations, while providing for the expansion of enterprise opportunities. In the future, and once mine operations are concluded, agriculture will provide an important source of cash income for the local communities. This is an improvement on what existed prior to the Company's presence when activities were largely restricted to subsistence-level farming.

In 2016, through the CDF programs, PanAust contributed US\$67,033 towards agriculture capacity-building programs including:

- A livestock improvement project to support poorer families in the local villages. In 2016, ongoing support was provided to the families who received a cow or pig in 2015 (as breed stock in order to help the household begin raising livestock). The project was undertaken in collaboration with the Anouvong District Agriculture and Forestry staff who provide advice on raising livestock and provide vaccinations. The animals are managed as a 'revolving fund'. This means that after producing their first litter, some animals will be transferred to other poor families in the same village. In 2016, further support was provided to the poorest families through a pilot goat farming project. Following four days of training on animal husbandry, each household received three goats. Similar to the livestock improvement project, goats will be managed through a 'revolving fund' so that the benefits of the project can be transferred to other poor families.
- A village grazing land development project to provide fencing material so that enclosed paddocks can be established with improved pasture grass. Traditionally in these villages – as in most of the country – cattle are 'free range' for most of the year and are left to graze in the forested hills surrounding the village. This approach requires low labour inputs, but results in high attrition due to illness, loss and theft. Grazing in paddocks facilitates improved health monitoring.
- Honey bee, bamboo rat, strawberry, lime and choko farming pilot projects to provide alternative business opportunities post closure.



Mrs Kham Mueng Phanouvong at the Dong Mee Kham water factory in Ban Nam Mo



The ATM at Ban Nam Mo

Throughout 2016, PanAust's operations collectively purchased US\$954,409 from local small community businesses producing consumables such as vegetables, drinking water, eggs, fruit and fish that were purchased by the mines.

#### PROCUREMENT SPEND FROM HOST COMMUNITY BUSINESSES

	2014	2015	2016
Total (US\$)	972,552	1,013,390	954,409

#### ACCESS TO FINANCIAL SERVICES

Since 2010, the Company has assisted 12 local communities to establish microfinance schemes through the Village Savings and Credit Funds (VS&CF), thereby empowering local communities, in particular women, through enterprise development and other benefits that come through saving for the future.

The VS&CFs provide access to savings and loan facilities that are not otherwise available in rural areas for its 1,794 members. Members take loans to support a variety of small-scale income generating activities as well as to cover household expenditure such as education and healthcare. Village-level management committees provide oversight of the schemes, supervised by a District Supervisory Committee headed by the Lao Women's Union.

In 2016, PanAust officially handed over responsibility for three VS&CFs back to the District. These funds had been running for over five years and were successfully transferred with positive feedback regarding the continued use of the fund.

In 2016, US\$245,943 in savings was deposited into the fund by participating members and a similar amount was released in loans. The average payback rate for loans throughout the year was a healthy 95 per cent.

PanAust expended US\$20,377 to support the committees with capacity-building, supervision and monitoring during 2016. The District Supervisory Committee undertook regular monthly monitoring of the VS&CFs and an internal audit during the year. These governance mechanisms ensure that the VS&CFs remain in strict compliance with the regulatory and administrative requirements of the scheme.

In 2016, a training session on computer use was provided to support the VS&CF. In partnership with the Banque Franco-Lao, training sessions were provided on banking and financial management in Ban Nam Mo, Ban Nam Gnone and Ban Nam Change.

2016 was the first full year of having ATMs available in the villages.



## SOCIAL PERFORMANCE (CONTINUED)



The wetland system supporting closure strategies for the Heap Leach Gold Operation

### CLOSURE PREPAREDNESS

Closure planning is a strategic issue for PanAust. While mine closure is several years into the future for existing operations in Laos, it is recognised as good practice to establish dialogue with stakeholders early and to align operational commitments with post closure outcomes during the life of operations. The Company acknowledges the need to ensure that host communities in closest proximity to its activities are supported to build capacity and skills to plan for and manage post-closure issues as well as to capitalise on any opportunities.

During 2016, mine closure planning progressed with a closure alignment workshop held in Laos. The workshop was facilitated by an external consultant and included internal PanAust representatives from operations, government relations, legal, security, health and safety, finance, human resources, environment and social. The aim of the workshop was to define the PanAust closure vision and objectives. It also considered potential post mining land uses for key site areas including the TSF, waste rock dumps, open-pits and infrastructure.

In 2016, the social aspects of closure were progressed. An external consultant was engaged to provide a high level review of the CDF programs and the social aspects of the closure strategy. The findings were presented at a social closure workshop and the detail used to develop a draft plan for CDF projects over the next five years. Further work to be progressed in 2017 includes a review of agricultural programs, the identification of the social impacts of closure and preparation of a draft Social Closure Plan.

To oversee the closure planning process, and in particular, to progress the design aspects of closure with technical input from environmental and social specialists, a corporate based manager was also appointed. With this oversight, closure plans for the Lao Operations will progressively become more detailed and specific through an iterative process of consultation and review, focused on achieving a feasibility study level of detail in each plan. It is anticipated that feasibility level of detail will be achieved in 2017.

At the Heap Leach Gold Operation, significant work was undertaken to progress closure. The processing plant was decommissioned, and some accommodation facilities were handed over to the Lao People's Army through a formal agreement to establish a permanent barracks. Work is still continuing with the environmental closure (refer to page 54). Outstanding land compensation issues were resolved in full and this has allowed a large portion of land in the valley to be returned to local communities for agricultural production.

The Company continued to engage in dialogue regarding the impacts of closure, post-closure land use and other closure-related issues primarily with the Government of Laos and host communities.

## CASE STUDY

## CONTRIBUTIONS TO EDUCATION



(Left to right) Mr Khemphet Chanveesay, a Junior Technician with the Environment Department at Phu Kham with his daughter Ms Vee Chanveesay in front of the Ban Nam Mo Secondary School



(Left to right) Ms Vee Chanveesay, her father Mr Khemphet Chanveesay with Phu Kham Community Supervisor, Viengvay Chanthasay

PanAust understands that education is the foundation for improving people's lives. Education is a cornerstone of social development with literacy and numeracy skills opening up opportunities for advancement in many areas of life. PanAust's first CDF programs in Laos included a focus on education for a number of reasons: to open up employment opportunities at the mine for local community members; to open up capacity-building opportunities in the local community to support the mine; and to provide opportunities for individuals and local businesses beyond closure.

PanAust understood early on that whilst primary education is compulsory in Laos, enrolment rates, completion rates and learning outcomes are low due to issues related to poverty, insufficient schools and/or skilled teachers, and a lack of books or teaching aids. Over-crowding is also an issue in many village schools. While access to primary education has improved significantly over the past 20 years, many children drop out before completing the full five year primary school curriculum, meaning functional literacy has not been achieved. Secondary and tertiary education completion rates are lower still.

Phu Bia Mining's community education program aims to improve learning outcomes for children and adults in local communities. Projects have focused on improving children's access to primary school through: school construction, provision of school uniforms and stationery, education scholarships and providing measures to improve the quality of education through teacher training, provision of teaching aides etc. Since commencement of the CDF program in 2007, PanAust has contributed to the construction, expansion and/or improvement of 19 schools in Laos, thereby improving access to education for almost 1,700 students. During 2016, the Company contributed US\$207,710

towards initiatives designed to increase access to education and the quality of learning within communities near its operations. Programs for the year included: construction of the Nam Mo Secondary School, improvements to buildings, water supply and latrines, and provision of Summer school and adult education. These projects were undertaken in close coordination with the District Education and Sports Office.

PanAust also identified early that there was a need to improve education for adults in the local host communities. Many adults have not had the opportunity to receive primary education and as such their literacy and numeracy skills are weak. This in turn affects life opportunities in general. PanAust commenced adult education programs in 2010. Since commencement, 662 people have attended the adult education programs with over 85 per cent of the participants being women.

Mr Khemphet Chanveesay and his wife are residents of Nam Mo Village and they have six children. Greater access to educational facilities in the village has meant that Mr Chanveesay's youngest daughter has the opportunity to go to school. Previously, due to the distance of the school from the village and lack of money for transportation, Mr Chanveesay was unable to send his other children to school.

"I am very sorry and sad that my first five kids do not have the opportunity to go to school. My idea is that I would like all my kids to have an education and a permanent occupation. Currently the access to school is more convenient when compared to the previous. I will pay attention to support and encourage my last daughter to study to finish the upper secondary school and then continuing study at the vocational school so that she will have a bright future," Mr Chanveesay said.



## ENVIRONMENTAL PERFORMANCE

As a company that exploits natural resources, PanAust acknowledges that leading-practice environmental management is essential to business success.

Respect for the environment is a core Company value (see page 11) and is at the forefront of business strategy, decision-making, and day-to-day operations.

From exploration to development, throughout operations and into closure, PanAust endeavours to limit its impact on the natural environment. It does this by complying with host country legal requirements and through the effective management of mine waste, efficient use of resources, progressive rehabilitation of land and the maintenance of ecosystem services\*.

Planning for the management of environmental issues at the pre-development stage is the cornerstone of PanAust's success with environmental management. PanAust's approach to environmental management firstly requires an understanding of baseline environmental conditions; followed by the identification of project-specific risks and impacts; and then implementation of controls in conjunction with monitoring and measurement of performance.

Baseline studies, environmental and social impact assessments (ESIAs) and annual IFC audits are used in conjunction with internal risk management processes to understand PanAust's environmental risk profile. Environmental risks are managed through the Environmental Management System which includes sustainability standards, procedures, and management and monitoring plans for each site. Progress against management and monitoring plans is assessed at regular intervals. For key material issues, external audits and/or detailed reviews of performance are undertaken (for example, for tailings and waste rock management).

In 2016, PanAust submitted the Environmental Impact Statement (EIS) for the Frieda River Project in PNG (refer to page 57 for a case study on this project).

The Company recognises that an environmentally aware workforce is integral to achieving high standards and continuous improvement. Each year, PanAust delivers environmental awareness training programs, including inductions, to all employees and contractors working at its operations in Laos and at the Frieda River project site.

PanAust encourages the reporting of all incidents as it reinforces a risk-aware culture and ensures that even minor issues are investigated and appropriately addressed. Incidents are recorded and processed through PanAust's electronic reporting and corrective action event management system, InControl Software (INX). The use of INX allows for trends to be identified to assist in avoiding repeat occurrences where possible.

In 2016, PanAust had no significant environmental incidents, complaints, spills, penalties, fines or non-monetary sanctions for any legal non-compliance.

### ENVIRONMENTAL PERFORMANCE: MATERIAL ISSUES 2016

PanAust's materiality process identified the environmental performance focus areas for 2016 as:

- TAILINGS AND WASTE ROCK MANAGEMENT
- WATER MANAGEMENT
- CYANIDE MANAGEMENT
- LAND REHABILITATION AND CLOSURE
- ENERGY AND CARBON MANAGEMENT
- DUST

### TAILINGS AND WASTE ROCK MANAGEMENT

Tailings and waste rock management continues to be the most significant short- and long-term environmental risk for PanAust. The management of tailings is significant due to the large quantity, metalliferous content, and fine sediment nature of the material to be managed, and, the requirement for long-term stability of the tailings storage facilities (TSFs). The management of waste rock and acid rock drainage (ARD) is comprehensive due to the potential for ARD to induce acidity and dissolved metals into water which can be harmful for receiving communities and environments. To effectively manage these risks, detailed planning and design are required before mine development coupled with comprehensive governance during operations to limit environmental impacts to a level equal to or better than international standards, promote beneficial post-mining land uses and reduce post mine closure liability.

#### TAILINGS

PanAust operates two purpose-built TSFs, one for each of its mines in Laos. Each is designed and constructed to international standards (including the Australian National Committee on Large Dams, ANCOLD) incorporating the best available technology to account for an integrated life-of-mine and closure management strategy. The Phu Kham TSF is used to dispose of waste rock and tailings. The Ban Houayxai TSF is used to dispose of tailings. Waste rock is disposed of in an engineered waste rock dump.

► \* Ecosystem services are the benefits that people, including businesses, derive from ecosystems. They can be grouped into four broad categories: provisioning, such as the production of food and water; regulating, such as the control of climate and disease; supporting, such as nutrient cycles and crop pollination; and cultural, such as spiritual and recreational benefits.

From exploration to development, throughout operations and into closure, PanAust is committed to limiting the impact on the environment.

▶ Environment Assistant, Mr Somphan Philavong attending to seedlings in the nursery at Ban Houayxai



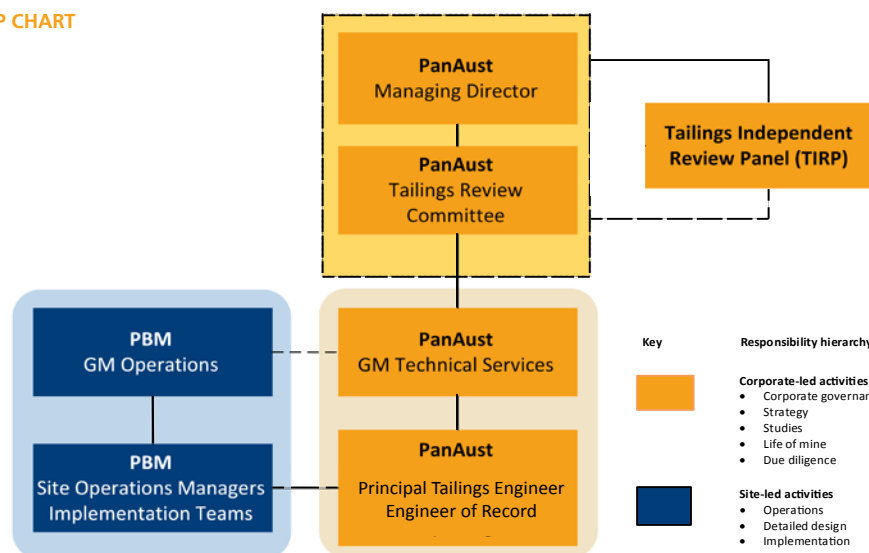
## ENVIRONMENTAL PERFORMANCE (CONTINUED)

**PanAust has well-established stewardship programs for tailings and waste rock management.**

► Land rehabilitation at Ban Houayxai



PANAUST TSF STEWARDSHIP CHART



TSFs require comprehensive management and governance processes throughout the life of each facility. PanAust has a well-established stewardship program for its TSFs in Laos including the following:

- **Executive management commitment:** A commitment from the Managing Director to ensure appropriate governance processes are in place and construction and operating procedures for the facilities are consistently adhered to.
- **Appointment of a Tailings Independent Review Panel (TIRP):** The TIRP directly reports to PanAust's Managing Director on material risks to the facilities. The TIRP currently consists of two industry-leading tailings and geotechnical specialists. Each year, the TIRP review includes physical inspections of the Phu Kham and Ban Houayxai TSFs, and an evaluation of the monitoring and measurement systems. The Panel reports its findings to a PanAust Tailings Review Committee reporting to the Managing Director. Action plans are developed and a follow up audit is completed ahead of each wet season to confirm progress (see page 27).
- **Overview and quality assurance:** A Principal Tailings Engineer based in the corporate office provides overview and quality assurance of design and construction activities.
- **Annual dam safety inspections:** Annual audit of each facility completed by the Design Engineer.
- **Risk-based review:** A risk-based review is completed annually.
- **Engineer of Record:** An Engineer of Record is responsible for the design, construction, operation and performance monitoring.
- **Quarterly inspections:** Quarterly inspections by PanAust's Principal Tailings Engineer.
- **Inspections and monitoring:** Daily, weekly and monthly inspections and monitoring by trained PanAust employees reporting to a site-based Tailings Dam Superintendent.

Monitoring of seepage and embankment deformation is undertaken as well as inspections and audit programs to ensure that the equipment is operational and working appropriately.

- **Detailed dam design:** Detailed dam design for each construction period by the Design Engineer.
- **On-site laboratory:** An on-site laboratory provides results for quality control and quality assurance of construction materials.
- **Mine Closure Plan:** Final dam designs are being developed in preparation for closure. A pre-feasibility study is being completed to inform the final design and will be engineered to a feasibility study level over the next twelve months as part of the Laos operations closure plan.
- **Five-yearly comprehensive dam performance audits:** A deep dive audit of tailings dam management in 2015 led to a commitment to comprehensive dam performance audits to be conducted on a five yearly basis.

#### WASTE ROCK

PanAust's approach to ARD management is considered leading-practice across the global mining industry. In 2016, our approach was documented as a case study in the 'Australian Government Leading Practice Sustainable Development Program for the Mining Industry Handbook on Preventing Acid and Metalliferous Drainage'.

PanAust proactively manages the potential for ARD from the early stages of mine planning through to operations and closure. At both Phu Kham and Ban Houayxai, the management strategy to address the potential for ARD commenced well before mine operation, with sulphur modelling undertaken as an integral component of orebody modelling and mine planning processes. The sulphur modelling facilitated detailed characterisation of rock types based on their acid-forming potential which informed the development of an integrated ARD life of mine plan.



## ENVIRONMENTAL PERFORMANCE (CONTINUED)

The ARD management plan provides strategies for the identification, control and monitoring of mine waste and is regularly updated with any relevant changes in sulphur modelling. Within the Phu Kham ARD management plan, waste rock is classified and managed in accordance with the following categories:

- Blue waste rock: lithologies with non-acid forming potential and acid-neutralising capacity; can be deposited anywhere on site
- Green waste rock: non-acid forming potential; can be deposited anywhere on site and is able to be used for other purposes
- Amber waste rock: low acid forming potential; suitable for placement in purpose built, clay-lined cells in the TSF embankment wall to prevent oxidation
- Red waste rock: high acid forming potential; deposited within the catchment of the TSF and is progressively submerged below a water cover to prevent oxidation and reduce the potential for ARD.

On a day-to-day operational basis, mining operations use an equipment management system (Jigsaw), incorporating a real time global positioning system (GPS) to ensure that specific waste rock types are directed to the correct destination on a truck-by-truck basis.

High-level governance of ARD management is provided through PanAust's ARD and Sediment Management Committee which comprises internal management and external ARD consultants. The committee check that management strategies are effective in limiting the potential for generation of ARD during construction and placement of waste, and that it will continue to be effective following mine closure.

Consultant reviews of the ARD management at both sites confirm that the programs for managing ARD risks at Phu Kham and Ban Houayxai are highly developed. The programs are consistent with methods described in the Global Acid Rock Drainage Guide which is sponsored by the International Network for Acid Prevention with the support of the Global Alliance, 2014.

### TAILINGS/WASTE ROCK QUANTITIES (TONNES) FOR PHU KHAM AND BAN HOUAYXAI

	2014	2015	2016
Waste rock (total)	38,361,951	45,155,118	44,642,896
Red waste rock*	4,028,062	7,361,862	7,843,894
Tailings	23,010,966	23,786,834	23,424,057

\* Red waste rock is defined as high-risk, potential acid forming waste

Phu Kham and Ban Houayxai have mineralised waste and low grade stockpiles that are managed through internal water management systems. Rehabilitation is accounted for in closure plans.

### WATER MANAGEMENT

PanAust recognises that water resources need to be managed responsibly to meet operational requirements (including for processing ore) while limiting impacts on receiving environments and communities. In Laos, there are mine water run-off challenges associated with the operations being located in steep mountainous terrain within a tropical climate that has distinct wet and dry seasons.

On a regular basis PanAust assesses and manages water risks through internal risk management processes. Further details of water risks and opportunities can be found in PanAust's submission to the CDP Water Program available at [www.cdp.net](http://www.cdp.net). PanAust has participated in this program since 2012.

PanAust's operations have detailed water balance models and implement associated water management and monitoring programs. Water levels in the TSF are monitored closely to ensure that the high sulphur tailings and waste remain under a cover of water to prevent ARD. Overall, there is a net positive water balance with excess water discharged as necessary in a controlled manner throughout the year.

In 2016, total operational waste water discharge volume increased at Phu Kham to achieve the water balance requirements for the TSF.

At each operation the majority of water that enters the TSF is from rainfall runoff from the upper catchments, with a small volume of treated water coming from site processing, and at Phu Kham, from pit dewatering. Both facilities have been designed with clean water diversion drains to minimise the capture of rainfall runoff. During the 2016 wet season (May to October), all water management control measures, including sediment control, performed well. The controlled discharge from each TSF was monitored by Company environment personnel as well as Government of Laos officials. Results were assessed against World Bank/IFC and Lao ambient water-quality guidelines, as well as background water-quality conditions.

In 2016, exceedances of total suspended solids (TSS) in the TSF discharge at Ban Houayxai continued to occur during wet season peak storm events. An internal review identified that the issue of elevated TSS was not material due to the elevated background TSS levels in the receiving environment. Further work continues to be undertaken in collaboration with local government officials to establish site-specific guidelines for TSS, particularly considering wet-season peak storm events and associated ambient TSS levels of the receiving environment.

While water use at PanAust's operations is significant, the vast majority is recycled. Approximately 95 per cent of water used at Phu Kham is drawn from a recycled source; the balance is drawn from the Nam Mo River and used for domestic purposes and specialised cooling systems in the process plant.

Water recycling is limited at the Ban Houayxai Operation due to geographical constraints requiring the TSF to be located in a different catchment, remote to the site's process plant. Water recovery and reuse is maximised within the process plant area.



The Ban Houayxai process plant at night

#### PHU KHAM AND BAN HOUAYXAI OPERATIONS WATER USAGE AND DISCHARGE (MEGALITRES/YEAR#):

	2014	2015	2016
Fresh water domestic use	216	276	226
Fresh water to process	8,660	8,821	8,677
Total water use in process	53,663	61,275	61,018
Recycled water to process	45,004	52,453	52,341
Compliant water discharged^	96,063	26,700	55,164
Percentage of recycled water	84	86	86

# Measured by water meters or other estimation techniques.

^ Storm water from Phu Kham and Ban Houayxai TSFs and the decommissioned Heap Leach Gold Operation. Production at the Heap Leach Gold Operation ceased in April 2010; discharge water continues to be treated passively through a wetland as part of the mine closure plan.

#### CYANIDE MANAGEMENT

The Ban Houayxai Gold-Silver Operation uses cyanide in the processing circuit to extract gold and silver from the ore. PanAust recognises that the use of cyanide for precious metal extraction is a sensitive issue and that stringent operating and environmental controls are necessary to ensure the safe transportation, use and disposal of cyanide and cyanide-related products.

In 2016, Ban Houayxai successfully underwent its three-yearly recertification audit as required by the International Cyanide Management Code (the Code). The audit confirmed that Ban Houayxai continues to operate in full compliance with the Code. The Code, which is administered by the International Cyanide Management Institute (ICMI), is a voluntary program for the responsible manufacture, transport, use and disposal of cyanide in the production of gold. The Ban Houayxai Operation was

designed in accordance with the standards of the Code and received pre-operational certification to the Code in 2012, and operational certification in March 2013. PanAust's compliance to the Code is testament to how effective planning during design can mitigate environmental issues during operations. PanAust conducts annual internal audits to ensure that it continues to maintain compliant standards of operation. PanAust's audit reports and signatory status can be viewed on the ICMI website, [www.cyanidecode.org/signatory-company/panaust-limited](http://www.cyanidecode.org/signatory-company/panaust-limited).

Several design features were incorporated into Ban Houayxai to achieve Code compliance, including robust process control systems, emergency ponds and appropriate bunding. The most notable feature is the plant's detoxification circuit. The circuit destroys cyanide in the tailings slurry so that it contains less than the internationally agreed safe level of cyanide for solutions discharged to the environment. Prior to leaving the plant and before entering the TSF, monitored cyanide levels are already better than international water quality standards necessary for discharge of excess water to the environment.

PanAust recognises that the ongoing management of cyanide risks is dependent upon a trained, competent, cyanide-aware workforce. The site-based Emergency Response Team has been trained to respond to cyanide incidents, and an emergency containment pond has the capacity to capture any accidental spill. Cyanide transportation activities are undertaken by a Code-certified transporter and the site regularly hosts cyanide-awareness sessions with communities along the Ban Houayxai transport corridor.

More information about PanAust's approach to cyanide management can be found on the Company's website, [www.panaust.com.au/environment](http://www.panaust.com.au/environment).



## ENVIRONMENTAL PERFORMANCE (CONTINUED)

### LAND REHABILITATION AND CLOSURE

The progressive rehabilitation of land and appropriate closure planning is essential for ensuring that end land-use meets stakeholder expectations and environmental requirements.

Both the Phu Kham and Ban Houayxai operations have plans in place to progressively rehabilitate land to a standard which aims to minimise ongoing environmental impact and to facilitate post mining and ore processing use. Both operations have nurseries to propagate native seedlings for use in rehabilitation. Annual programs to rehabilitate land are incorporated into each site's operating plans. PanAust recognises that in most cases, achieving full rehabilitation may take several years.

PanAust considers closure planning at all stages of each project's lifecycle. Where significant risks are posed by ARD, PanAust's operations are designed to limit long-term closure risks. The Company has in place a Closure Standard, Closure Cost Estimation and Provision Standard and the Closure Stakeholder Engagement Plan which set out the closure requirements for sites.

Phu Bia Mining's Closure Committee provides internal oversight of the closure planning process and stakeholder engagement strategy. The committee is supplemented by technical consultants as required. Closure plans are in place for Phu Kham, Ban Houayxai and the Heap Leach Gold Operation, all of which are supported by financial provisions.

In 2016, a closure alignment workshop was held in Laos to establish a common vision and objectives for closure. A corporate-based manager has been appointed to progress closure studies closely aligned with the life-of-mine plans. Option assessments were completed to support a pre-feasibility study and closure plan update in 2017. In 2018, the study is expected to achieve a feasibility study level of accuracy.

#### LAND DISTURBANCE AND REHABILITATION (HECTARES)\*

	2014	2015	2016
Land disturbed and not yet rehabilitated (opening balance)	1,378	1,362	1,380
Land disturbed in reporting year	35	31	43
Land rehabilitated in reporting year	51	14	11
Total land disturbed and not yet rehabilitated (closing balance)	1,362	1,379	1,412

\* Includes Phu Kham and Ban Houayxai

PanAust has an established joint Rehabilitation and Closure Consultative Committee with the Government of Laos. The committee is a structured engagement forum that aligns the Company's longer term social and rehabilitation programs with community requirements following mine closure. In 2016, due to government realignment, it was agreed with the Vice-Governor of Xaisomboun Province that the Closure Consultative Committee should be led by the central government under the Ministry of Energy and Mines with committee standing membership to be reviewed in the June quarter of 2017.

Decommissioning of the former Heap Leach Gold Operation continued in 2016 with the removal of all processing related infrastructure, offices and some accommodation facilities which were not required for future use or handover to third parties (refer to page 46). The wetland constructed in 2015 has proven successful in treating leach pad runoff to appropriate discharge guidelines. The wetlands now provide the passive treatment process for storm water discharge from the site. Extensive monitoring of the downstream river system continues and confirms that water discharged from the site throughout the year is within ambient limits. Human health and environment risk assessments have been completed. Phu Bia Mining is now finalising a closure design solution for the heap leach pad to remove the remaining community health and environmental issues.

### ENERGY AND CARBON MANAGEMENT

PanAust designs its operations and projects to be energy efficient. With fuel and electricity being significant cost drivers for the business, PanAust minimises the consumption of these resources in order to achieve the intent of the ICMM Principles for Climate Change Design.

In growing the PanAust business it is anticipated that the Group's total carbon emissions will continue to increase over time despite the commitment to improve energy efficiency of each operation. In 2016, while significant effort was made to improve efficiencies, the Company's Scope 1 and 3 emissions increased.

These emission increases were forecast based on increased production at Phu Kham and Ban Houayxai and associated material movements (considering the deepening of the mine pits and associated increased in-pit haulage routes). Energy intensities have remained predominantly the same since 2014. This is a significant achievement given the deepening of the mine pits at Phu Kham and Ban Houayxai, and the increased energy consumption associated with processing harder ore.

#### ENERGY CONSUMPTION (GIGAJOULES)\*

MATERIAL	2014	2015	2016
Diesel	2,370,023	2,532,529	2,675,905
Electricity	2,060,562	2,135,805	2,191,522
Petrol	720	346	304
LPG	6,413	6,638	6,471

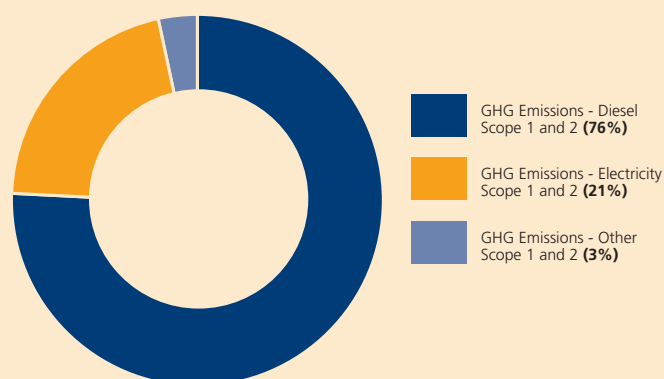
\* Includes energy consumption for Phu Kham, Ban Houayxai, Frieda River Project, logistics, exploration and offices.

#### ENERGY INTENSITY (GIGAJOULES/MEGATONNE)\*

	2014	2015	2016
Diesel intensity (GJ/Mt)	38.4	37.1	38.1
Electricity intensity (GJ/Mt)	33.4	31.3	31.2
Total ore and waste mined (Mt)	61,733	68,227	70,226

\* Includes Phu Kham, Ban Houayxai and logistics.

### 2016-SCOPE 1 AND 2 GREENHOUSE GAS EMISSIONS BY ENERGY SOURCE:



### GREENHOUSE GAS EMISSIONS (TCO<sub>2</sub>-E) \*

GREENHOUSE GAS EMISSION SCOPE	2014	2015	2016
Scope 1 (direct greenhouse gas emissions)#	181,450	185,829	198,232
Scope 2 (indirect greenhouse gas emissions from the generation of purchased electricity)#	55,788	57,820	53,538
Scope 3 (greenhouse gas emissions from the broader project lifecycle including materials used, travel and transport)	242,925	254,407	266,744

\* Measured according to the World Resources Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol

# Emissions include Phu Kham, Ban Houayxai, Frieda River Project, exploration and offices

Each year, teams across the business identify and implement projects that will reduce energy and/or materials consumption. These projects are tracked to identify annual savings, including greenhouse gas emissions, and payback periods. In 2016 alone, it is estimated that over US\$2 million was saved through the implementation of these projects.

PanAust was awarded 'Most Profitable Carbon Reduction Activity' at the 2015 CDP Australian Climate Leadership Awards and in 2016 was again selected as a finalist. For the most up-to-date details regarding PanAust's climate change risks and opportunities and energy efficiency projects, go to the CDP website and search for 'PanAust' [www.cdp.net](http://www.cdp.net).

Systems are in place to manage water risks associated with extreme weather events at each site. PanAust has introduced flexibility into its logistics chain with regards to haulage routes and port access. PanAust also has contingency plans in place for key materials in the general supply chain and maintains appropriate contingent stock levels.

PanAust's operating sites have annual energy and carbon emissions inventories. Both operational sites use a combination of direct and indirect energy sources to carry out their activities, predominantly diesel and grid electricity sourced from hydroelectric power.

As a substantial consumer of energy, PanAust focuses on annual efficiency programs that reduce energy requirements. Successful projects implemented in 2016 included:

- Implementation of owner haulage from operations to ports to promote backloading of general consumables freight. The aim of this project is to ensure that all inbound freight is transported to site as part of the 'empty' return leg of the outbound concentrate freight journey.
- A 'smooth drive' fuel efficiency program was implemented which rewards logistics drivers for driving in a manner which reduces fuel consumption. A competition was established to encourage fuel efficient driving where the six most fuel efficient drivers from each route are rewarded. Benchmarks for fuel efficiency measurements were initially set. These included ensuring accurate reporting of fuel expenditure and collection of consistent data. This initiative produced improvements in fuel efficiency across the concentrate haulage fleet on all haulage routes and has translated to annualised cost savings of US\$120,000.

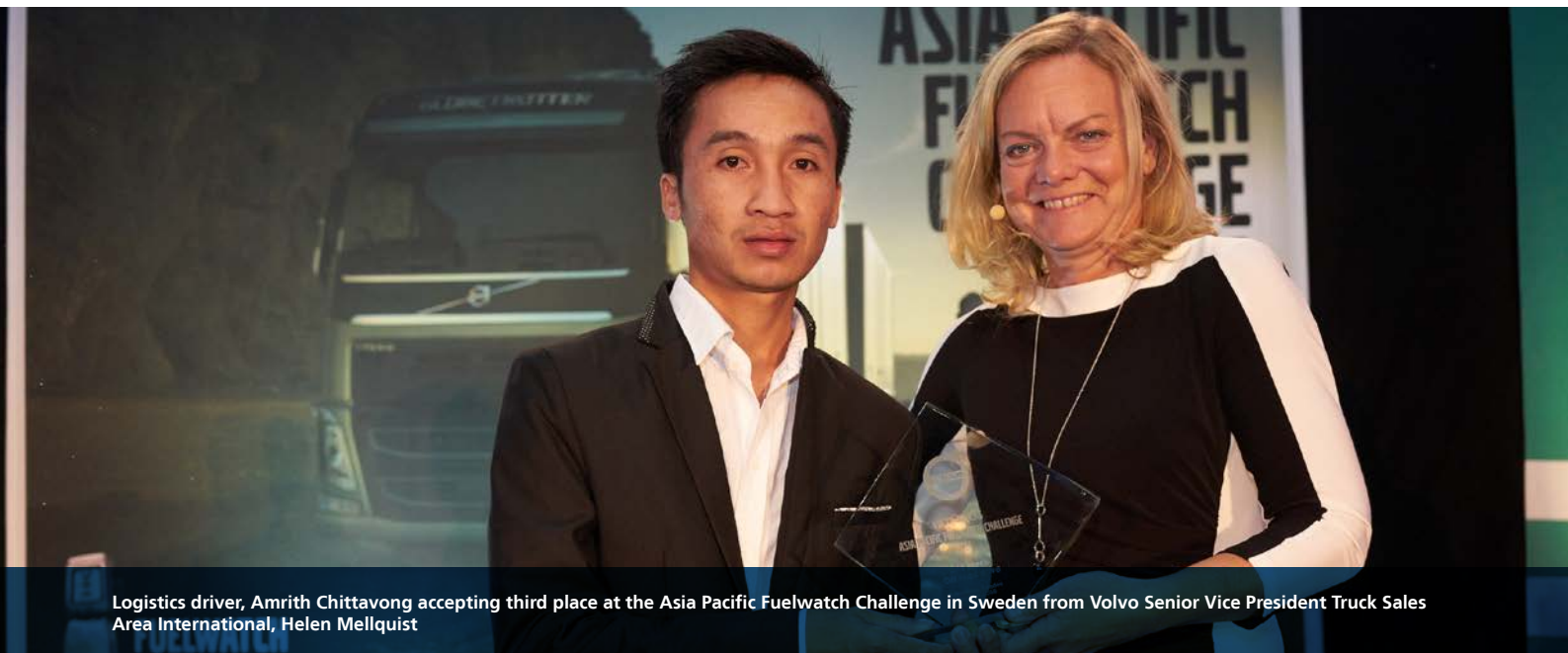
In 2016, PanAust trialled backloading of diesel fuel on the return leg of concentrate haulage. The trial involved the design of a prototype half height tank that could stack onto the empty concentrate containers. An independent review confirmed that the design is stable in any combination with either full and empty concentrate containers. The backloading trial was successful and full implementation of backloading of diesel fuel is expected in 2017.

Within PanAust's logistics business in Laos, significant improvements have been made to tyre performance to improve wear rates and reduce tyre consumption. The tyre management program was developed in conjunction with a tyre specialist following an audit of the existing tyre processes, equipment and facilities. This included a number of initiatives such as continuous magnetic sweeping of routes to mitigate puncture risk. The program has resulted in savings of over 2,700 tyres and approximately 12,000 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>-e) in Scope 3 emissions in 2016.

PanAust's maintenance facilities in Laos continued to maintain their 'Caterpillar 5-star' contamination control rating. The work that is in place to achieve this rating is significant for greenhouse gas emissions savings, particularly in terms of reduced materials consumption. Specifically, the efforts involved in achieving 5 stars has led to reduced oil consumption and extended replacement/rebuild life on the mine fleet. Phu Kham and Ban Houayxai are two of only three operations worldwide that have the maximum 5-star rating.



## ENVIRONMENTAL PERFORMANCE (CONTINUED)



Logistics driver, Amrith Chittavong accepting third place at the Asia Pacific Fuelwatch Challenge in Sweden from Volvo Senior Vice President Truck Sales Area International, Helen Mellquist

Diesel consumption for transport activities accounts for the largest component of the PanAust energy and greenhouse gas inventory. PanAust recognises that drivers play an essential role in delivering fuel efficient transport. In 2016, PanAust competed in Volvo's Asia Pacific Fuelwatch Challenge which is a competition that promotes fuel efficiency and driver productivity. After intense competition in Laos, PanAust concentrate haulage driver, Amrith Chittavong was awarded first place and the honour of representing Laos at the Asia Pacific final in Sweden. To compete, Amrith not only had to satisfy Volvo's fuel efficiency criteria, he had to embody PanAust's safe driving culture. Amrith more than adequately did so, having recorded no warnings or major speed breaches in the 12 months prior to the competition. In Sweden, Amrith achieved third place against strong international competition.

### DUST

Mining, processing, the haulage of product and the transportation of goods to and from PanAust's operations are activities that generate air emissions. PanAust recognises the importance of assessing and managing risks associated with air quality from these emissions.

Dust continues to be the most common air quality issue of concern to the communities adjacent to the Phu Kham Operation as well as for communities along the Company's transport routes in Laos. The main concern relates to the visual impacts of dust particulates on vegetation and community infrastructure. Due to its remoteness, operations at Ban Houayxai have minimal impact on local communities. The impact at Phu Kham is greater due to the close proximity of two local villages. Dust at the Phu Kham Operation is generated from activity on haul roads, the ore stockpile, blasting, drilling

and excavating, and ore dumping at the primary crusher.

The Company strives to limit dust by minimising land disturbance, carrying out road watering, using filters and dust suppression equipment on drills and conveyor systems and transporting product in covered vehicles. Significant progress has been made to address dust issues along the concentrate transport route through the progressive bitumen sealing of the road. All road sections through villages are now sealed.

An internal dust management forum and dust management plan are in place at Phu Kham. A Trigger Action Response Plan is used to manage acute dust emission issues.

Ambient air quality monitoring is regularly conducted in communities adjacent to the Phu Kham Operation and haulage route. Personal exposure monitoring is also conducted in the workplace.

In 2016, the dust monitoring program was extended to include additional dust monitoring locations; one at the Phu Kham accommodation camp and the other at the Phu Kham process plant. A review of the results from these and existing locations was undertaken by external consultants. The findings and recommendations were incorporated into a revised Dust Monitoring Plan for the site, which was finalised in the early 2017.

## CASE STUDY

## ENVIRONMENTAL IMPACT STATEMENT FOR FRIEDA RIVER



PanAust General Manager Government and Community Relations (PNG), Glen Connell (right) submitting PanAust's EIS for the Frieda River Copper-Gold Project to CEPA Managing Director, Gunther Joku

PanAust holds an 80 per cent interest in the Frieda River Copper-Gold Project (the Project) which is located in a remote area of north-west PNG. The Project contains one of the largest known undeveloped copper and gold deposits in the world and offers PanAust excellent potential for the establishment of a world-class, long-life operation.

In December 2016, PanAust submitted the Environmental Impact Statement (EIS) for the Project to the Conservation and Environment Protection Authority (CEPA) of PNG. The submission of the EIS was a significant milestone given that copper mineralisation was first discovered in Frieda River in the mid-1960s. Baseline and social investigations for the Project began in 1979 with studies continuing intermittently over subsequent years.

The Project will generate substantial benefits including the provision of 3,720 jobs at the peak of construction and an approximate 2,000 direct jobs during its expected 17 years of operation. The average annual income stream will be approximately US\$0.5 billion with a total tax, royalty and production levy revenue to the PNG government and landowners of over US\$3.5 billion.

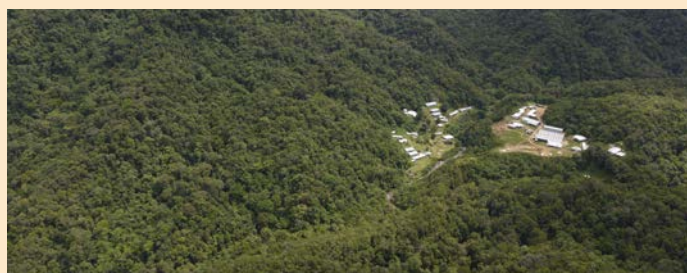
Feedback and community input resulting from stakeholder engagement activities throughout the mine area and logistics corridor have informed decision-making processes for Project design. Key engagement activities included the Environmental Inception Report engagement campaigns in 2010 and 2014, Community Leaders Forums, the Sepik Awareness Program in 2011, 2015 and 2016, the Joint Provincial Consultation Committee and employee engagement activities, as well as targeted briefings.

The Sepik River awareness program, now in its third campaign (second campaign with PanAust), involved 55 meetings with approximately 80 villages along a 700-kilometre stretch of the river and aims to increase mutual understanding between the Frieda River Project and Sepik River communities. The two campaigns run by PanAust in 2015 and 2016 were attended by an estimated 14,000 villagers. Each meeting was held in a central village location to encourage maximum participation from communities including women, children and other vulnerable members.

The EIS highlights how important the Frieda and Sepik rivers are, both from an environmental perspective, and the valuable contribution they make to people's lives and livelihoods. The rivers and river basins are used by local communities for fishing and hunting, drinking, cooking, laundry and bathing. The EIS concluded that the Project will not reduce the water quality of the Sepik River.

The key strategy for limiting impact on the downstream environment is the subaqueous deposition of waste rock and tailings within an integrated storage facility, and active treatment of open-pit water. There will be no riverine disposal of tailings or waste rock for the Project. The EIS proposes 19 monitoring and management plans to address potential environmental risks during construction, operations and closure.

Water stewardship is crucial for everyone. PanAust proposes to adopt its successful oversight process for water that has been put in place for tailings and ARD management (refer to page 51).



View of the Frieda River Copper-Gold Project base camp from a helicopter



## HEALTH AND SAFETY

PanAust's commitment to health and safety is built on the Zero Harm philosophy whereby all workplace incidents and injuries are considered preventable. Striving for Zero Harm requires continual improvement and this is a cornerstone belief of the PanAust business culture.

PanAust's 2016 results clearly reinforce the value that safety brings to the business in terms of improving production while containing costs. For the size of the Company, our safety performance is outstanding. To reach the objective of Zero Harm, PanAust clearly articulates safety performance expectations to all employees and has in place robust systems and processes to promote ways to continuously improve safety outcomes across the entire workforce.

PanAust's Vision and Values and Sustainability Policy provide guidance for and outline the Company's commitment to health and safety. Health and safety is also addressed as the first requirement within *The PanAust Way* which details required behaviours of employees, contractors and suppliers. Through day-to-day behaviours (words and actions), PanAust's leaders are required to promote a culture of Zero Harm.

PanAust assesses and manages health and safety risks across the Group through its Safety Management System, which is consistent with OHSAS 18001\*. The Safety Management System is based on a continuous improvement model of: policy and standard setting; planning; implementation and operation; checking and corrective actions; and, management review of performance against the model. The purpose of this approach is to provide PanAust with a consistent framework to deliver on its safety objectives.

In 2016, work continued on the development of operational safety standards for the PanAust Asia business unit with 18 standards rolled out. Each of the standards has an assigned champion in the business to drive ownership at the site level. The current focus for the business is on carrying out a gap analysis for compliance against each of the standards.

The Company recognises that a risk-aware workforce is integral to driving safety performance and fostering continuous safety improvements. Behavioural safety programs are a fundamental element of creating a risk-aware culture and underpin the effectiveness of management systems. As such, they continue to play an important role in the Company's remuneration and incentive programs. Visible safety leadership is driven at all levels of the organisation with positive performance indicators set for general managers down to supervisors. Lead-indicator programs were implemented in 2015 and continue to focus on visible safety leadership, job safety observations in the field, deep dive audits, workplace inspections and safety training. In 2016 planned task observations (PTO) were added to the suite of lead-indicator programs.

Lead indicators help drive visible safety leadership by having

the general managers, managers, superintendents and supervisors leading by example in a meaningful way through programs that drill down to ensure safety systems and controls are operating effectively.

PanAust has seven Cardinal Rules which are clear and simple safety instructions with which all PanAust employees must comply at all times. One further Cardinal Rule applies specifically to work undertaken by employees in Laos and relates to the potential presence of unexploded ordinance. The Cardinal Rules focus on high-risk activities within the mining industry that have historically caused harm to people and are applicable to PanAust. PanAust's Cardinal Rules can be viewed on the Company website, [www.panaust.com.au/health-and-safety](http://www.panaust.com.au/health-and-safety).

PanAust requires all employees, contractors and visitors to undergo a safety induction prior to entering PanAust controlled work sites. This includes general safety and workplace-specific inductions. In addition, the Company runs a number of mandatory core safety training programs and specialist training for high-risk activities. During 2016, 24,859 hours of induction and health, safety and environment training was completed at PanAust's Lao operations.

PanAust benefits from a strong health and safety incident reporting culture. The Company's Group-level Incident Reporting and Classification Procedure is aligned with the Mineral Council of Australia's guidelines for tracking and reporting health and safety statistics. The investigation and management of significant incidents (that is, actual or potential controlled incidents and/or actual or potential influenced incidents) continues to be overseen by the Senior Management Taskforce for Significant Incidents. The taskforce is comprised of operational executives. The taskforce is responsible for ensuring that the Group-wide implications of significant incidents and any emerging safety concerns are given appropriate consideration and followed up. This approach ensures that findings and recommendations are not limited to the incident and personnel who may have been affected; findings are shared across the business where similar activities occur or where different activities with similar risks occur.

Since 2010, PanAust has held an annual Risk and Sustainability Workshop. It brings together employees and local contractors from across the business to review performance against the annual PanAust Group Risk and Sustainability Plan and to discuss updates or changes to the plan that may be required. The workshop is used to review emerging issues for the business and discuss how these may be managed. Workshop outcomes feed into the broader PanAust strategy and objective-setting activities run by the Executive Management Team. Further information on the Risk and Sustainability Workshop for 2016 can be found on page 20, in the 'Governance' section.

► \* Occupational Health and Safety Assessment Series (OHSAS) 18001 is an internationally applied standard for occupational health and safety management systems.

PanAust's commitment to health and safety is built on the Zero Harm philosophy whereby all workplace incidents and injuries are considered preventable.

★ Guiding a Caterpillar 740B Articulated Dump Truck in service truck configuration into the Mobile Maintenance Facility at Phu Kham



## HEALTH AND SAFETY (CONTINUED)

The Company's TRIFR and LTIFR continue to be significantly better than industry averages. At year end 2016, PanAust achieved 18 months LTI free.



► Fire and Emergency Services team members Mr Sengthor Siayeh (left) and Mr Yiavang Vang (right) conducting routine checks on rescue equipment

## SAFETY PERFORMANCE

At the end of 2016, PanAust achieved a milestone 18 months (this equates to over 19 million hours worked) - without incurring a lost time injury. This outstanding safety performance reflects the Company's commitment to Zero Harm and the success of targeted safety programs which focus on hot spots and lead indicators.

PanAust's lost time injury frequency rate (LTIFR) for 2016 of 0.00 was a significant improvement over the already low 2015 result of 0.15. PanAust's total recordable injury frequency rate (TRIFR) of 1.15 was 15 per cent lower than the annual target of 1.35 and continues the year-on-year trend of outperforming targets. While TRIFR has increased from 2015, this was expected given the overall increase in the Company's risk profile over the past three years, including entry into two new jurisdictions (PNG and Myanmar) and bringing in-house the concentrate logistics operations in Laos. PanAust's TRIFR and LTIFR continue to be significantly better than industry averages.

### 2014-2016 PANAUST GROUP REPORTABLE INCIDENTS (CONTROLLED WORK SITES)\*\*

	2014	2015	2016
Working hours (employees and contractors)	13,680,409	12,945,489##	12,989,512
Fatalities	2	0	0
TRIFR**	0.88	0.62	1.15
DART <sup>^</sup> frequency	0.22	0.15	0.15
LTIFR	0.15	0.15	0.00

\* Controlled work sites include data for both employee and contractor injuries and man-hours

# Injury rates are the number of injuries for every million hours worked for the year

<sup>^</sup> Days away, restricted or transferred

\*\* The TRIFR target for 2016 was higher than previous years due to an overall increase in the PanAust risk profile driven by the localisation program in Laos, increased logistics activities and the construction of an access track at the Frieda River Project.

## The working hours for 2015 have been corrected (increased by approximately one per cent) from the hours reported in the 2015 Business Review & Sustainability Report as an error was found in the previous data.

PanAust's reportable statistics include controlled worksites and cover work-related activities where PanAust can set safety, health, environmental and community standards and directly supervise and enforce their application. The statistics include contractors who are working on PanAust controlled worksites.

Categories that are tracked, but do not form part of externally reported lag statistics, include influenced and monitored sites. Influenced activities receive additional attention through contractor management and lead indicator programs. For comprehensive descriptions of PanAust's 'categories of control', visit the Company's website [www.panaust.com.au/health-and-safety](http://www.panaust.com.au/health-and-safety).

## HEALTH AND SAFETY: MATERIAL ISSUES 2016

PanAust's materiality process identified the health and safety focus areas for 2016 as:

- SAFETY CULTURE
- CONTRACTOR MANAGEMENT
- VEHICLES AND MOBILE EQUIPMENT
- FATIGUE MANAGEMENT
- CRISIS AND EMERGENCY MANAGEMENT
- AVIATION SAFETY
- SECURITY MANAGEMENT

### SAFETY CULTURE

PanAust continues to develop a proactive and positive safety culture. This is not done to simply achieve minimum compliance with legislation. Instead, it reflects our values and our desire to make our business a success beyond just economic measures. The Company recognises that its safety culture is shaped by the actions of its leaders and relies on the consistent expression of agreed values, standards and behaviours to the workforce.

In 2016, PanAust continued to focus on visible safety leadership through the development of a leadership capability model called 'Leading the PanAust Way' (refer page 74). Expanding Positive Performance Indicator (PPI) programs with updates to the job safety observation process, the roll out of planned task observations and continuing the deep dive audit program.

Leading the PanAust Way is a Human Resources initiative rolled out in 2016 that helps define and advance the PanAust safety culture through enhancing participants' capabilities and having them lead by example. The purpose of this capability model is to provide PanAust leaders and high potential employees with a clear understanding of the desired behaviours of all current and future leaders. It forms an extension of the Company's code of conduct, *The PanAust Way*. Leading the PanAust Way is based on the five core leadership capabilities of being able to:

- Effectively manage yourself
- Manage the business responsibly
- Build and maintain effective relationships
- Achieve high performance outcomes
- Create vision

The job safety observation process was updated to include a 'five key safe behaviours' initiative. These five behaviours were derived by examining safety incidents across a 12-month period and grouping them into behaviour categories. Eighty-four per cent of all safety-related incidents fell into one of the following five categories: 'eyes on the path', 'eyes on your hands', the 'right tool for the job', 'mind on the job' and 'line of fire'. By focusing the job safety observations on these five key safe behaviours the intent is to generate mindfulness of these behaviours across the workforce, and reduce people being injured in the workplace.



## HEALTH AND SAFETY (CONTINUED)

Planned task observations focus on compliance to a system rather than a snapshot of the employee's behaviour which is observed and discussed through the Company's job safety observation program. A planned task observation focuses on how the employees are working in compliance to a standard, procedure, job safety analysis (JSA) or permit. PanAust rolled out the planned task observation training program during the December quarter of 2016 and expects to fully implement the program in 2017. By year end approximately 64 per cent of personnel had completed the training program.

In 2016, deep dive audits were conducted in the areas of cranes and rigging, isolation and lockout, occupational health and hygiene, concentrate logistics mechanical inspections, concentrate haulage fatigue management (Laos), emergency response (Myanmar); ground control and slope stability, village visitation – safety and security, grievance management (PNG), fraud and human resource systems and practices (Corporate). Thirty-two deep dive audits have been completed since the program commenced in 2014, with strong leadership buy-in and value provided to the business. The deep dive audit program has had a significant impact on the Company's safety culture and controls. Measuring the development of the PanAust safety culture requires a range of indicators to be evaluated. PanAust uses training programs including 'Leading the PanAust Way' to help drive the development of the culture, while the Visible Safety Leadership Program, Positive Performance Indicators and the Risk and Sustainability Workshop help monitor the maturity of the safety culture. Lag indicators such as the safety performance statistics are used as feedback indicators on the output of the PanAust safety culture.

### CONTRACTOR MANAGEMENT

The Company continues to work closely with local contractors who have had little to no previous mining experience to continuously improve their safety culture and bridge identified gaps in their safety performance. This approach is not without challenges and contractor safety performance continues to be a high-risk area for the business that is given close attention.

PanAust has a Group-wide Contractor Management Standard and engagement process for all contractors. The standard details PanAust's requirements including expectations for the contractor and the PanAust contract owner. These expectations were further clarified in 2016 and training in the updated standard commenced. By year end, 69 per cent (82 people) of all personnel requiring training had successfully completed this course.

Contractors are subject to regular audits of their facilities and activities. Contractors who pass these audits and continue to meet PanAust's safety expectations remain a PanAust preferred contractor. Dedicated maintenance and safety personnel are based at Phu Kham and Ban Houayxai to support contract owners and local contractors to help improve their maintenance practices and operations.

In 2016, contractor workshops at both Phu Kham and Ban Houayxai were also audited against the newly developed PanAust Workshop Standard with the goal of bringing the contractor facilities up to a consistent standard across the sites.

Representatives from key contractors including Boart Longyear, MVDC, ODR and TKPV once again attended the Company's Risk and Sustainability Workshop to reinforce PanAust's expectations and support with regards to alignment with PanAust safety management standards.

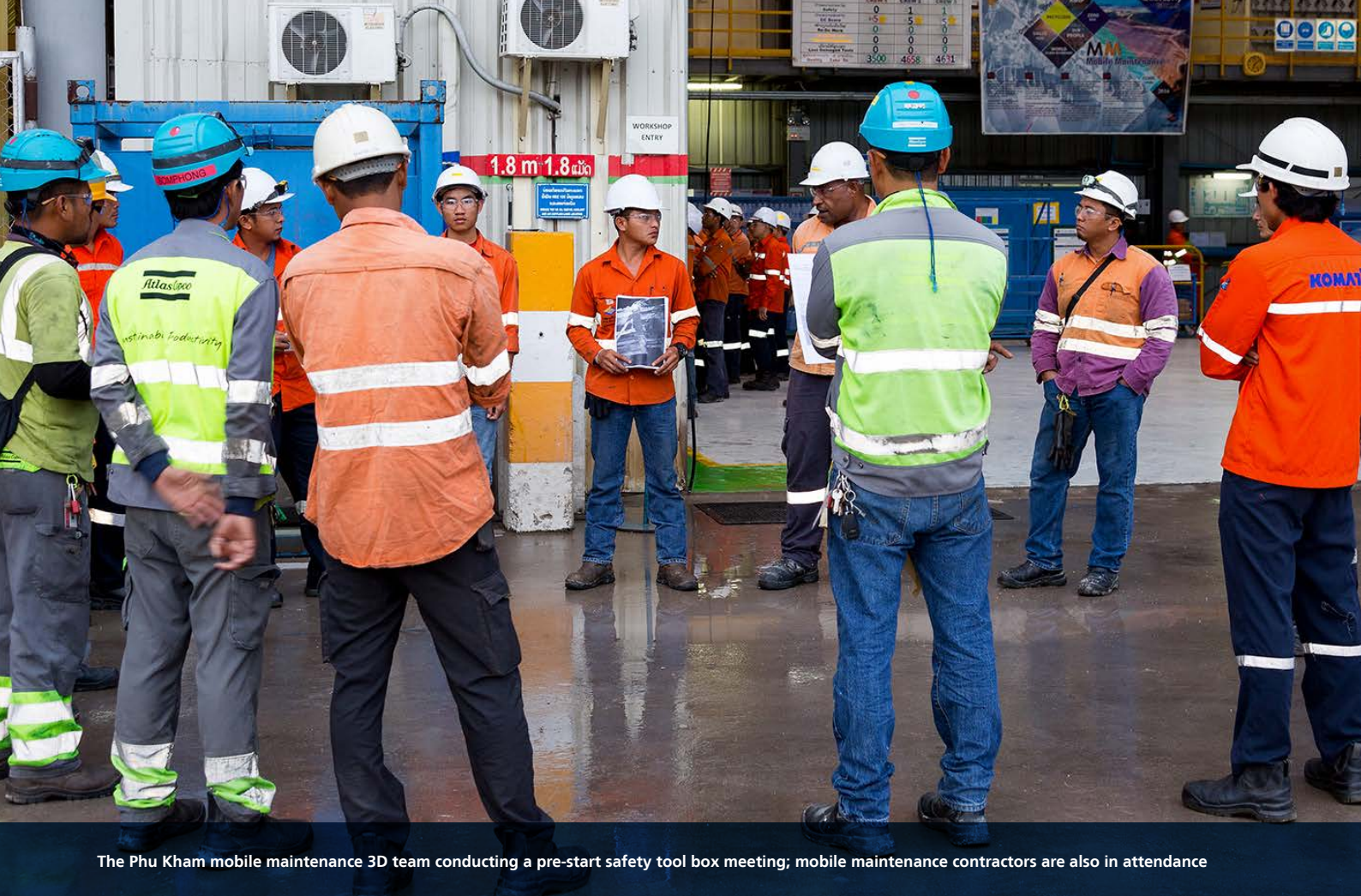
PanAust is applying lessons learnt from its operations in Laos to the Frieda River Project in PNG. A similar centralised contractor management process that was initiated in 2015 on the Frieda River Project continued to be implemented in 2016 with health, safety, community and environment evaluations conducted for the selection of long-term strategic contractors as well as contractors supporting site operations.

### VEHICLES AND MOBILE EQUIPMENT

PanAust continues to implement a number of safety initiatives to curb driver-related vehicle incidents. 2016 results confirm year-on-year improvements with 14 high-potential incidents occurring compared to 26 reported in 2015, 44 in 2014 and 101 in 2013. This is a remarkable achievement given that PanAust recently brought all concentrate haulage within Laos in-house, taking control of an additional 480 employees and 52 concentrate trucks.

Vehicle safety along PanAust's transport and haulage routes and at the Lao operations remains a significant area of focus due to the inherent risk exposure. Existing initiatives continue to be enhanced and several new initiatives have been introduced to improve vehicle and mobile equipment safety. Initiatives in 2016 included:

- Fitting in-cab cameras across the Company-owned logistics fleet (comprising buses, trucks and escort vehicles) and mining haul trucks at both Phu Kham and Ban Houayxai.
- A range of initiatives related to fatigue management
- A redesign of the Phu Kham mobile maintenance workshop to improve forklift and personnel separation.
- Fitting Sadko passenger transport modules (specifically designed and engineered for roll over protection) across the entire Sadko truck fleet (including contractors) at both Phu Kham and Ban Houayxai.
- Ongoing enhancements to public road design and quality where roads are complex (curves, switchbacks and undulations) to reduce the burden on the drivers. These enhancements included incline reductions, removal of switchbacks, sealing roads, resurfacing, installing ARMCO railings, installing roadside reflectors and improving signage.



The Phu Kham mobile maintenance 3D team conducting a pre-start safety tool box meeting; mobile maintenance contractors are also in attendance

- A proactive tyre inspection program which focuses on tread management and route sweeping to prevent punctures. Vehicle mounted, hydraulic powered, tyre changing equipment has been acquired to reduce manual effort by drivers en route and to provide safer positioning when the truck is being raised or lowered.

Additionally, PanAust has an ongoing program to ensure fitness for work, including random, mandatory and causal drug and alcohol tests.

At the Frieda River Project, construction of the exploration access track commenced to link the Frieda River port to the existing Frieda River airstrip. The earthworks contractor servicing the project was required to ensure that all light vehicles used during track construction complied with PanAust's Light Vehicles Standard. Due to the proximity of the exploration access track to local villages, and the fact that there had previously been no vehicle access in this remote area, education sessions were held with local villagers around the dangers associated with vehicle and mobile equipment traffic.

## FATIGUE MANAGEMENT

Driver fatigue is recognised as a significant risk factor given the Company's operations work on a continuous basis. The two key areas of operation are the mining fleet (primarily CAT 777D dump trucks) and the logistics fleet (predominately concentrate haulage on public roads). The total distance travelled each year is approximately 12 million kilometres for the concentrate haulage fleet and 4.9 million kilometres for the CAT 777 mining fleet.

During 2016, there were three high potential incidents within the concentrate haulage and mining fleets that were fatigue related. These incidents were investigated using the incident cause analysis method by a multi-disciplinary team including two general managers and an independent expert on fatigue from the Australian logistics group Linfox, an internationally recognised leader in haulage safety.



## HEALTH AND SAFETY (CONTINUED)

A PanAust fatigue committee has been formed and is comprised of executives and senior managers from across the business. The committee's mandate is to ensure that any investigation learnings, research or recommendations concerning fatigue management are shared and implemented Group-wide.

To further reduce the risk of fatigue, a number of initiatives were implemented during 2016 including:

- A review of logistic route driver-reviver stops to reduce the distance between stops, and the recruitment of additional personnel to man the stops
- Improvements to logistic drivers accommodation, focused on noise and light reduction strategies, as well as a reduction in driver headcount per room
- A 'Logistics Safety Day' themed 'don't drive tired' encouraging drivers and their families to tour the company logistics facilities, to be aware of the dangers of fatigue, and to inform family members as to how they can support drivers to combat fatigue
- Extending reception of the highly successful Phu Kham FM radio station to cover Ban Houayxai
- The addition of fatigue management functionality to the Jigsaw mining fleet management system to prompt drivers to assess their levels of fatigue and to privately notify the control room if they are feeling fatigued
- Assigning room controllers to the Phu Kham mining fleet accommodation areas to manage and minimise disruptions to personnel when they are sleeping.

In 2016, a fatigue management consultant was engaged to review and assess potential risk factors that could arise from the roster arrangements and driving practices on the company's concentrate logistics haul route from Phu Kham to Vietnam. The review included inspections of the route, company provided accommodation facilities, driver-reviver stops, and a practical review of all procedures for managing fatigue. The consultant recognised that the existing controls have been well researched, discussed and implemented. A number of new opportunities for improvement are currently being introduced.

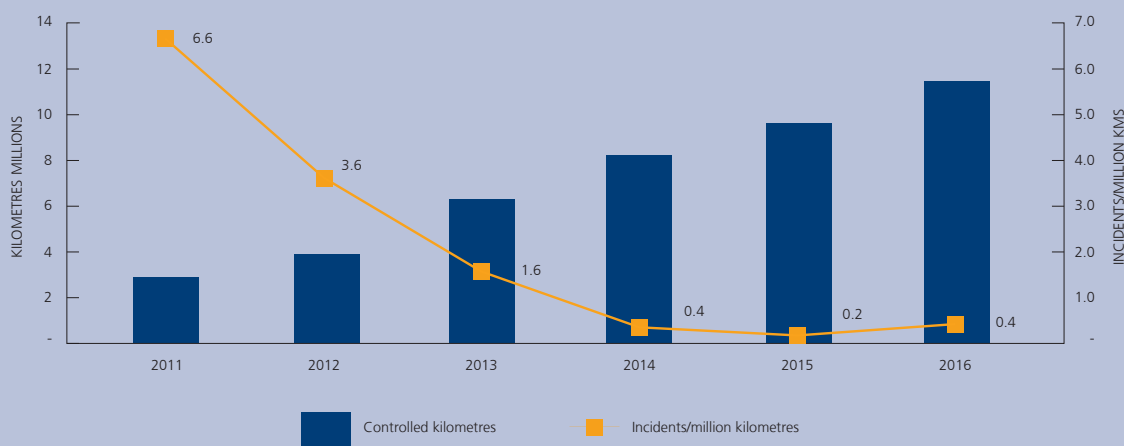
### CASE STUDY LOGISTICS SAFETY JOURNEY

The PanAust Logistics safety journey is testament to the Company's philosophy that when pursuing economic and sustainability outcomes in a complementary manner, excellence in one area will encourage and facilitate excellence in the other. The journey to improved safety performance in Logistics has led to significant flow on benefits in terms of operational efficiencies and associated cost savings.

In 2014, in response to a number of high-potential incidents and given the high-risk safety profile of logistics activities, PanAust commenced a three-year journey to bring Lao logistics operations in-house. This allowed for greater ability to influence operational efficiencies as well as focusing on improved safety performance. It also meant that PanAust could gain better control of product movements to ensure that each vehicle movement mattered - 'no truck should travel empty and fewer trucks should do the same work'.

The key actions to progressively address several safety challenges and bring logistics operations in-house included:

- Leasing a fleet of 57 Volvo trucks and establishing of a close relationship with Volvo to ensure that the vehicles were the best fit for the business and able to deal with increasing payloads and back-loading initiatives.
- Embarking on an extensive training program for 300 plus new employees. Specialist driver trainers are utilised in a rigorous six-week driver training program to ensure high levels of competency for all PanAust drivers on logistics routes. The program concludes with two weeks of in-cab assessments and includes driver simulator training which covers a range of adverse condition and emergency scenarios in order to develop the driver's risk avoidance techniques.
- Equipping the logistic fleet with GPS tracking and live vehicle telemetry that reports back to the logistics control room on speed, harsh braking, acceleration and cornering. Drivers have five seconds to correct their behaviour before it is logged. This information is used to generate driver league tables and report cards which are issued to drivers at the end of their journey to encourage safe and efficient driving behaviours.
- Implementing escort vehicles and small convoys for all logistics movements. The escort alerts drivers to changes in road conditions and can assist during vehicle breakdowns.
- Establishment of a multi-million dollar maintenance workshop at Ban Thouay that includes a state of the art brake testing facility. The workshop complies with Volvo specifications. Personnel from Volvo's agent in-country maintain the facility and independently check the Company's fleet. The facility is



also independently checked by in-house Logistics personnel.

- Establishing dedicated driver accommodation which was subsequently upgraded for fatigue management. Measures taken to curb driver fatigue included the provision of air-conditioned rooms, reduction of light and noise disturbances through additional segregation, reduction in the number of drivers per room (from six to three) and in-cab cameras to raise awareness of fatigue and its influence on driver behaviour.

Feedback from drivers about the upgraded accommodation facilities have been positive. "We do not disturb each other while sleeping or when we wake up. There is more privacy and we get a good sleep," Mr Inlor, a night shift driver commented.

"I like the new room because it is dark enough to make us sleep

well," Mr Bounthan, also a night shift truck driver, added. The above initiatives have been instrumental in improving Logistics' safety performance and achieving the vision to be a world-class logistics provider. Since 2011, despite the increase in exposure from 3 to 12 million kilometres, the potential level three plus (PL3+) incident frequency rate per million kilometres travelled reduced from 6.6 to 0.4 in 2016. During the same period, haulage cost per tonne of concentrate halved. This reinforces the link between safety improvements and increasing operating efficiencies to create significant business value.

PanAust is now capitalising on these outcomes by implementing relevant initiatives in other parts of the business including personnel transport, general freight logistics and the mining fleet.



Driver Trainer Team Leader, Khamson Phonevilay quizzed children about how they can help their parents combat driver-fatigue at the Ban Thouay Logistics Safety Day, October 2016



## HEALTH AND SAFETY (CONTINUED)



Driver alcohol breath testing

### AVIATION SAFETY

When required, PanAust uses fixed-wing and rotary-wing (helicopter) aircraft to transport personnel and equipment to its operations and project sites.

The Frieda River Project is located in a remote region of north-western PNG and is only accessible by air transport. People movements in and out of the site are conducted using contracted fixed wing aircraft services while helicopters are used for transporting personnel and equipment, including drilling rigs, to challenging mountainous locations.

PanAust has implemented a Group Aviation Standard, Travel Standard and supporting guideline that detail the minimum controls required for aviation safety across the Group. During 2016 these standards were reviewed and amended to include specific requirements for helicopter external load operations.

Since 2010, PanAust has required an annual third party aviation safety audit of its private charter providers. During 2016, audits were carried out on three fixed-wing and rotary-wing aircraft operators in PNG; two rotary-wing aircraft operators in Laos; and two rotary-wing aircraft operators in Myanmar.

### CRISIS AND EMERGENCY MANAGEMENT

The capability to manage emergencies is vital in ensuring the health and safety of employees and communities, as well as business continuity. PanAust's operations are located in remote areas of Laos where there is limited government infrastructure or systems to deal with complicated or severe medical emergencies. Each operation has an emergency response plan, and trained, dedicated professional fire and emergency services (FES) teams and equipment.

FES resources include a dedicated team of emergency response professionals and equipment for: firefighting, road accident rescue, dealing with hazardous materials, water rescue and trauma management. Teams complete training modules equivalent to an Australian Certificate III in Mines Emergency Response and Rescue. Operations are equipped with trauma management clinics, doctors and paramedics.

Following the 2015 business efficiency review, the crisis management structure of the PanAust Asia Business Unit was revised to take into account changes to the organisational structure and the commencement of exploration activities in Myanmar. These changes were supported by training and simulations at both operations, concentrate logistics, Vientiane and Myanmar offices. The training was provided by a specialist crisis management consultant. These exercises provided valuable learning and experience for the crisis management, medical and FES members in dealing with complex crisis situations.

Other initiatives during the reporting year included:

- Implementing dedicated staff and equipment rescue trailers to support concentrate logistics
- Purchasing three new Australian-built and specified fire trucks to support the Lao operations.

## SECURITY MANAGEMENT

PanAust is a member of the United Nations VPSHR and has in place clear guidance and procedures to manage the human rights aspects of security at its operations and projects. As the Company's activities in PNG and Myanmar ramp up, PanAust's existing security processes, procedures and training will be tailored to these jurisdictions and implemented.

PanAust has security personnel assigned to its operations in Laos. The Company's operations are situated in Xaysomboun Province which was historically the location of insurgent activities, largely arising from remnants of the Indo-China conflicts of the 1970s. While now stable, the legacies of conflict remain, and at times regional security incidents have occurred within close proximity to operations and exploration activities. Periodically these incidents have resulted in temporary restrictions on operational activities and the logistics route.

The Lao People's Army (LPA) is required by the Government of Laos to have a presence at Laos operations and remote exploration sites. In 2016 approximately 266 LPA were assigned to support Phu Bia Mining's activities. The LPA's role largely supports regional security external to PanAust's active working areas. They may also provide a presence alongside selected infrastructure and Company assets due to their criticality and/or vulnerability. This includes providing security escorts for remote exploration activities and along higher risk sections of the Company's logistics route.

The Company works closely with the LPA through a Memorandum of Understanding which outlines the Company's expected standard of behaviour and use of force expectations. Prior to commencement and each time they are subsequently engaged, the LPA undertake a Company-provided induction program. The induction covers the areas of safety, use of force as it relates to the laws of Laos, and key components of the VPSHR, underpinned by *The PanAust Way* and the Company's Values and other behavioural guidelines. During 2016, 1,303 LPA personnel completed the induction program.

PanAust employs loss prevention personnel to perform unarmed access control, static security and emergency response functions across the Phu Kham and Ban Houayxai sites. All loss prevention personnel including contractors are required to complete training in the VPSHR and the appropriate 'use of force'. During 2016 all loss prevention personnel in Laos attended the PanAust training in the VPSHR and the use of force.

Strict security protocols are established by the Company to pre-empt, and in response to, occasional regional security issues. A proactive approach is taken to initiate these protocols early and to progressively restrict remote work activities, personnel movements and operational activities during such periods based on proximity to operational areas and several other risk factors. This is aimed at minimising the need for further response and/or the potential for conflict to arise. In the first quarter of 2016 these protocols were initiated a number of times due to a spike in regional security incidents.

One incident\* impacting company personnel occurred in March when two Lao employees driving in a night shift general freight convoy on the public road (en route to Phu Kham) sustained non-life threatening gunshot wounds during an attack by bandits. The Company provided medical response, quality care and rehabilitation to these personnel to make a full recovery and they have since returned to work in full capacity. To date no arrests have been made in relation to the incident.

PanAust undertakes regular third-party security reviews and following the incident described above, Controlled Risks Group (CRG) was commissioned to provide an independent review of the Phu Kham security environment, and the appropriateness of the operation and logistics route security posture. The review confirmed that PanAust operations were not deliberately targeted and that a recent spike in incidents in Xaiyomboun and other Northern provinces at the time were likely being driven by local land or historical grievances.

Other security initiatives in 2016 included implementing additional surveillance technology, the upgrade and expansion of access control systems and, most significantly, reducing the Company's footprint by decommissioning the old heap leach gold facility. By the end of 2016 the operation saw an overall step change decrease in trespass and theft incidents across the operation, achieving its lowest rate of incident and incident severity reported in the past five years.

More information about PanAust's approach to security management can be found on the Company website, [www.panaust.com.au/community/managing-human-rights](http://www.panaust.com.au/community/managing-human-rights).

► \* Unlawful events are tracked internally but not included in company controlled safety statistics as the injuries are not related to the nature of the work conducted at the time (that being driving a vehicle).



## OUR PEOPLE

PanAust recognises that its employees make the most significant contribution to the success of the Company's business. As a result, it understands the inherent business value of attracting, engaging, developing and retaining its employees and providing a meaningful and rewarding environment in which to work. PanAust provides a professional environment where people can work productively and effectively while progressing personal growth and individual career development goals. The Company's strategic human resources (HR) framework, comprising six core components, aligns employees to the Company's vision, values, goals and objectives. These components are: employee health and wellbeing, remuneration and benefits, recruitment, training and development, organisational development and HR systems.

A full suite of published and communicated Policies, Standards and Guidelines provide employees with the necessary information on the practical application of the Company's vision and values. This includes an Employee Policy which guides PanAust's management of its people and the way work is undertaken. It is used as a reference for an integrated set of HR standards and processes. The Company's code of conduct, *The PanAust Way*, aligns employees' actions with PanAust's values and behavioural expectations including those supporting diversity in the workplace. These two documents along with other HR-related standards, inductions and training programs help employees understand their responsibilities when working for PanAust including expectations of behaviour when interacting with other employees and external stakeholders.

During 2016, PanAust's workforce numbers in Laos decreased marginally when compared to 2015. In Chile, a care and maintenance program was implemented at the Inca de Oro Copper-Gold Project with the objective of reducing the holding costs and resulted in all Chile-based roles being made redundant. An organisational review following completion of the Frieda River Copper-Gold Project feasibility study led to several positions being made redundant in the corporate office in Australia. In Papua New Guinea, the workforce reduction was also linked to the completion of the Frieda River Copper-Gold Project feasibility study which, together with the achievement of several key Project milestones, resulted in a reduction in the need for some roles.

### VOLUNTARY TURNOVER IN 2016

Overall, the PanAust Group's voluntary turnover statistics continued the downward trend from previous years with a further reduction in voluntary turnover in 2016. Within Australia and Southeast Asia, voluntary turnover was lower than the previous year. In PNG, 2016 was the first full year in which voluntary turnover was measured and within this workforce voluntary turnover was the lowest across the PanAust Group.

The Company closely monitors its turnover statistics and carries out exit interviews with departing employees. This enables PanAust to understand factors that influence employees' decisions to leave and has guided changes to policies and practices aimed at engaging and retaining employees.

### WORKFORCE NUMBERS FULL-TIME EMPLOYEES BY WORK LOCATION

REGION	2014	2015	2016
Laos	3,623	3,276	3,249
Chile	31	10	0
Thailand	4	4	4
Australia	63	60	52
PNG	140	124	100
<b>Total</b>	<b>3,861</b>	<b>3,474</b>	<b>3,405</b>

### PANAUST VOLUNTARY TURNOVER AVERAGE RATE (PER CENT OF TOTAL WORKFORCE)

REGION	2014	2015	2016
<b>PanAust Group</b>	<b>11.4</b>	<b>9.08</b>	<b>6.93</b>
Australia	8.5	14.06	10.53
Southeast Asia	11.6	9.20	6.76
South America	0.0	9.90	0.0
PNG*	N/A	N/A	1.68

\*2016 is the first year data is being reported for PNG



(Left to right) Phu Kham Mine Production Engineer, Nui Vongkhamthong; Phu Kham Mine Training Supervisor, Phongsavanh Mahakhot; TKPV Assistant Manager, Anuchit Chomsiang; Senior Drill and Blast Engineer, Chanol Yimyam and TKPV Mining Engineer, Punnika Sitthiyai at the Phu Kham pit

**PanAust values its employees and the significant contribution they make to the success of the business.**

► (Left to right) PanAust Principal Environmental Advisor, Michael Hawkins, Senior Human Resources Advisor, Fleur Barker and Senior Mining Engineer, Matthew Turner in the Brisbane corporate office boardroom



## OUR PEOPLE (CONTINUED)

**PanAust develops a skilled workforce that will continue contributing to the Lao national economy beyond the life of mines.**

- ▶ Second year Automotive Electrical Apprentice, Mr Khammy Onsy and second year Automotive Electrical Apprentice, Ms Khamta Phaisan completing on-the-job training at the Ban Houayxai mobile maintenance facility

## OUR PEOPLE: MATERIAL ISSUES 2016

PanAust's materiality process identified the workforce focus areas for 2016 as:

- TRAINING AND DEVELOPMENT
- EMPLOYEE ENGAGEMENT
- WORKPLACE DIVERSITY

### TRAINING AND DEVELOPMENT

All training and development programs offered by PanAust contribute to the Company's long-term goals and diversity objectives and are considered to be a mechanism to support employee attraction, engagement, career development and retention strategies.

In Laos, PanAust employs an in-house team of specialists to deliver general compliance and discipline-specific skills training. A total of 301,490 hours of training was delivered in 2016, representing an average of 93 hours of training per employee. Details of the type and volume of training delivered in Laos are outlined below.

#### BREAKDOWN OF TRAINING TYPES IN LAOS 2016

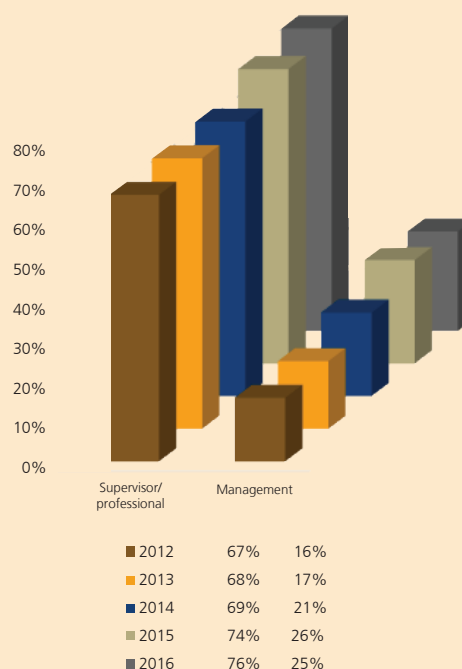
TRAINING SUBJECT/FOCUS AREA	TOTAL HOURS	PERCENTAGE OF ALL TRAINING PROVIDED
Mine operations	45,388	15
Apprenticeship program (delivered in partnership with the Lao-German Technical college)	119,552	40
Safety and induction	24,859	8
Professional and leadership development	15,069	5
Clerical, education and awareness programs	32,964	11
Trades and engineering	63,658	21
<b>Total training hours</b>	<b>301,490</b>	<b>100</b>

PanAust remains focused on the localisation of its workforce to enable Lao-nationals to increasingly operate, maintain and manage the Company's operations. This has the added benefit of meeting one of PanAust's long-term legacy objectives in Laos which is to develop a skilled workforce that can continue to participate in and help grow the national economy once the Company's operations are concluded.

PanAust's 'people development' strategy focuses on progressive learning and supports ongoing skills development through on-the-job experiences and targeted training. These activities are essential in ensuring employees meet the professional requirements of their current role and prepare them for future promotion. PanAust has established programs to ensure the development of a pipeline of talent that enables organisational readiness for Company growth and helps build a sustainable workforce.

This approach has seen a progressive increase in the proportion of Lao-nationals in management and supervisor/professional level roles over time. Building and nurturing a pool of experienced supervisors and professionals means that PanAust has been able to successfully transition Lao-nationals into management-level roles.

#### LAO-NATIONALS AS A PROPORTION OF SUPERVISOR/PROFESSIONAL AND MANAGEMENT ROLES 2012–2016



Paramount to the strategy is the development of an employee annual training plan. Regular reporting ensures compliance and competency training is undertaken by all employees to safely and competently perform their roles.

Technical training is also provided to employees, fast-tracking their development and giving them access to contemporary technical ideas and concepts to build upon their existing technical knowledge. Training is delivered via face-to-face learning and/or through online e-learning tools.

The success of these training plans is evidenced by the fact that in 2016 a total of 391 Lao-national employees throughout the business were either promoted or had a role grade progression. Most notably, 77 Lao-national employees were promoted to senior technical or team leadership roles, with an additional two being promoted to superintendent level.



## OUR PEOPLE (CONTINUED)

Throughout 2016 the training team focused its efforts on ensuring high-potential Lao and team leaders were released from work to complete the necessary modules toward completion of the Leadership Development Program, and attend technical training and trades and engineering skills development workshops. Completing the modules and application of the skills in the workplace are essential to these employees being able to transition into roles with greater leadership responsibility. This focus resulted in an overall increase in total training attendance hours for these courses from 19 per cent in 2015 to 26 per cent in 2016.

The organisational development team also successfully integrated 24 team leader roles throughout various departments in PanAust Asia, thereby inserting an important interim and progressive step for employees moving from the shop-floor into a front-line supervisory role. In this scenario, Lao-national employees are provided transitional support by expatriate trainers until they are deemed ready to supervise and manage teams independently of this support. This provides Lao employees with the necessary guidance and coaching in the early stages of their accession into a supervisory role and establishes a framework for success.

In August 2016 a new 'learning management system' (LMS) was launched by the in-house training department to enhance management and scheduling of training courses and track employee training records online. The system allows employees to self-nominate for training with approval from their managers, and schedules automatic reminder notifications when course content is refreshed, or when refresher training or a specific training competency needs to be re-examined. The system is being leveraged to ensure all mandatory employee training is captured and to improve functionality.

The LMS integrates with existing HR systems (e.g. SAP and SuccessFactors) providing a single platform through which all training records can be stored and accessed together with other relevant employee, performance, development and planning information. The benefits of having successfully implemented the LMS are already being recognised through increased visibility of training records and ready access to existing training records via a single access point.

The ability to use the LMS to analyse data, identify expired competencies and perform skills gap analyses for mandatory training courses is being used by the training department to ensure appropriate compliance with internal and external training standards.

### TRADES TRAINING PROGRAM

A key initiative designed to leave a lasting legacy in Laos is the Company's Trades Training Program. PanAust runs two distinct trades training programs. One is targeted at current Lao maintenance employees and the other is a longer term Apprenticeship Program.

Under the targeted trades training program, Lao maintenance employees' trade skills are assessed and tested. Based on the results, individual training plans are developed for each employee. This program was implemented in 2014, and as at year end 2016, resulted in 181 Lao employees progressing from a 'trades assistant' level to 'tradesperson' level.

PanAust's Apprenticeship Program in Laos was established in 2013 and offers a five-year apprenticeship in a technical trade discipline. Apprentices attend twelve months of pre-apprentice vocational training before entering the four-year apprenticeship program in a specific trade discipline. In partnership with the Lao-German Technical College in Vientiane, the program seeks to address a general shortage of qualified tradespeople within Laos and to generate a pool of appropriately qualified national candidates for the Company to employ.

In 2016, a total of 68 Phu Bia Mining apprentices (including 13 women) were in either their first or second year of training. The program also supports 16 apprentices from the MMG-owned Sepon Copper Mine in southern Laos (the only other large-scale mechanised mine in the country) who were invited by Phu Bia Mining to join the program following their observation of its success. The first intake of apprentices will graduate from the program as qualified tradespeople in late 2017. Additional program detail was outlined previously on page 86 of the *2014 Business Review & Sustainability Report*.

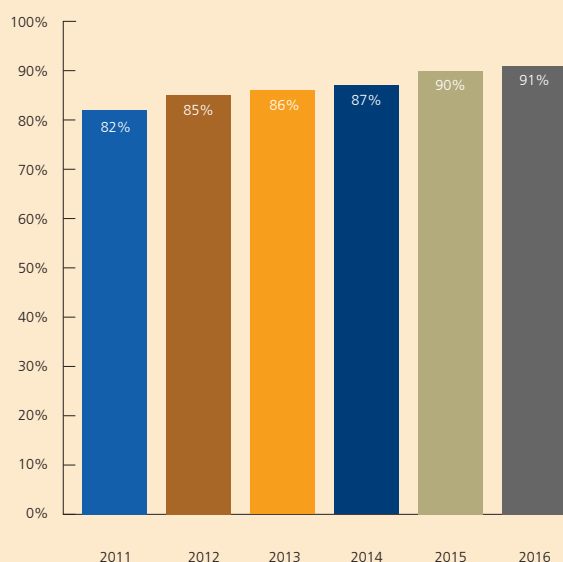
### TALENT MANAGEMENT

Fundamental to the Company's talent management strategy in Laos is its localisation strategy. For PanAust, the term 'localisation' refers to the transition of a position that is held by an expatriate employee, to a local, national employee. Localisation relies on the training and development of national employees to meet the requisite skills and competencies required to perform a role to the desired level. The result being a reduction in expatriate numbers by localising roles in relevant jurisdictions.

The localisation strategy is an overarching document which is supplemented by the annual training plan and provides direction in terms of areas to focus on with regards to Lao-national training and organisational development initiatives. The localisation strategy articulates the steps required to identify, target and ensure Lao-national employees have the requisite skills and abilities to replace expatriates, enabling them to succeed in current and future roles.

Each year the Company continually reviews and sets targets for localisation. In 2016, Phu Bia Mining improved on the previous year's landmark achievement of 90 per cent localisation, with 91 per cent of the workforce localised. This improvement demonstrates the success of the systems and programs in place and the Company's commitment to its localisation objectives. However, given the size of PanAust's business and that most of the remaining roles to be localised are highly specialised by nature, (refer to the breakdown of employees by locality graph, page 78), further significant localisation is expected to be challenging.

**LOCALISATION PROGRESS (LAO OPERATIONS)**  
**PROPORTION OF LAO-NATIONALS IN THE WORKFORCE 2011–2016**



Incorporating a level of flexibility within the defined organisational structure has proven to be an important element to the success of the Company's localisation strategy. Augmenting the planned opportunities to localise roles, Lao-nationals have also responded enthusiastically to unplanned opportunities; adding to the success of the strategy and supporting development programs. The fact that the Company was able to maintain similar operational performance in 2016 compared to 2015, with less expatriate labour reinforces the view that the Company's employee development programs are working.

The success of the talent management strategy to date has been underpinned by the Company's leadership development program, mentoring program, and professional development programs. The programs embody the core leadership competencies that PanAust have identified as the keys to success in PanAust leadership roles, regardless of an employee's functional area or position level.

#### PANAUST PROFESSIONAL DEVELOPMENT PROGRAMS

A number of internally run and designed formal training and development initiatives support the development and ongoing engagement of both Lao-national employees and its employees more broadly, including the following:

- Trades Training Apprenticeship Program
- Leadership Development Program
- Workforce planning – the annual budgeting process links in with the life-of-mine plan for the business to plan and predict workforce numbers. The process also identifies expatriate positions targeted for localisation.

- Succession planning – development plans are prepared for Lao employees who have been identified as potential successors for expatriate positions, addressing any competency gaps against the selection criteria for roles identified and developing training plans to address these gaps.

In addition to the formal programs above, a significant amount of informal on-the-job training and coaching between Lao-national employees and more experienced expatriate staff is making a positive contribution to the success of PanAust's operations and its objective of leaving a positive and sustainable legacy.

#### LEADERSHIP DEVELOPMENT PROGRAM

PanAust's Leadership Development Program is delivered as both a standard course via 'Leading the PanAust Way' and as a specialised course. All employees attend the standard course, while further specialised modules make up an additional course which is attended by front line supervisors, team leaders and high-potential employees.

Employees participating in the specialised course attend a series of internally run modules. Module content is focused on developing skills in relation to planning and strategy, managing performance, problem-solving and communication and negotiation. Each leadership module provides participants with the leadership tools and techniques to positively support and influence work teams. The training is delivered in English and Lao languages and aims to reinforce PanAust's high-performance culture and align leaders to PanAust's vision and values.

In 2016, 97 employees (all of whom were Lao-national and included 34 women) participated in the specialised Leadership Development Program. Each participant completes more than 200 hours of structured training and post-course assignments, including Safety Leadership Training. Eighty-one participants graduated from the program in 2016, continuing the year-on-year trend of an increase in Lao-national graduates (2014: 63; 2015: 73).

Inviting and encouraging Lao-national females to participate in the Leadership Development Program continues to be a focus area for the business with nine women graduating in both 2014 and 2015, and 21 in 2016.

#### MENTORING

PanAust's mentoring program is an internally run initiative to guide and encourage high-potential employees, who have been identified as future leaders, to achieve their full potential. Under the program, senior PanAust executives and managers mentor high-potential employees, called mentees from across the business. The mentor/mentee relationship provides mentees with access to experienced senior employees who can help them achieve their individual and business-focused development goals and support their progression within the Company.



## OUR PEOPLE (CONTINUED)

An initial pilot program, which commenced in 2012, involved 15 high-potential Lao mentees and was successfully completed in late 2014. A formal program review was then conducted with the conclusion that the program was highly valued by the Lao mentees as well as expatriate mentors with both parties stating tremendous two-way benefits including enhanced job satisfaction and greater engagement. As a result of this feedback, in 2015 program participation was extended and expanded to include high-potential employees across the business. Thirty-two mentees were chosen to participate in the mentee/mentor training including 21 Lao-nationals. All 32 mentees from 2015 continued participation in the program in 2016.

### Leading the PanAust Way

In 2016, PanAust proudly launched a new internally designed and facilitated leadership development program. The participants of the inaugural 'Leading the PanAust Way' program were members of the PanAust executive team. The program will be progressively rolled-out to leaders and potential leaders and ultimately to all levels within the organisation and will provide the platform to support other company leadership and organisational development programs.

The program promotes a PanAust-style leadership capability model which integrates key aspects of the business code of conduct, The PanAust Way, and PanAust's vision and values, and strategy. Central to the program is a 360-degree feedback survey completed by the participant's supervising manager, peers and subordinates. Participants are asked to reflect on how they are viewed and how they view themselves in the context of their own position and, more broadly, at a team, department and company level. Those who complete the program come away with a common understanding and language to describe the qualities and behaviours which PanAust expects and values in its employees and leaders, along with 360-degree feedback as to leadership strengths and areas for self-reflection.

The goal of the program is to develop an internal pool of internal leaders and potential leaders who are intrinsically aligned with PanAust's vision and values and have the capability to deliver PanAust's business strategy.

### EMPLOYEE ENGAGEMENT

PanAust's employee engagement agenda is embedded within all aspects of the HR framework, localisation strategy, training and development plans and the employee lifecycle. Formal development programs, wellbeing initiatives and performance incentives have been designed and implemented. These build a strong relationship with employees, encourage maximum performance and secure an employee's emotional attachment to the Company. Examples of existing initiatives at PanAust are summarised on page 75. The stakeholder and interested parties table on page 33 also outlines specific engagement mechanisms and priorities for the 2016 reporting year.

PanAust is scheduled to conduct an employee engagement survey in 2017 to test employee engagement and retention rating as the Company heads towards mine closure in Laos, and as a comparison point to the survey conducted in 2014 (reported in the *2014 Business Review & Sustainability Report*). The Company is seeking to understand whether initiatives implemented following the previous survey are having a positive impact and to gauge employee perceptions about mine closure. Results will be assessed and considered in conjunction with other mine closure planning activities.

### Annual Employee Awards

PanAust's Employee Awards Program rewards outstanding contributions to safety, sustainability and production on a team and individual basis. The purpose of the awards is to promote a clear link to the business goals and vision and values of the Company. The aim of the program is to foster a culture of continuous business, professional and individual improvement and promote activities critical to the Company's success.

Six categories are recognised including three individual and three team. Within the individual category section the Company formally recognises an Employee of the Year, Outstanding Leader of the Year and an award for an individual who has contributed the most to the training and development of employees. Nominations within these categories are open to all employees and winners and runner ups are selected by a voting committee.

The team categories recognises teams or work groups for their outstanding achievements in the areas of cost and production, safety and sustainability and includes an overall Team of the Year Award. This Award identifies the team that has contributed in the most significant way to overall Company success for that year. Nominations in these categories are open to general managers and above in consultation with department managers across the business. Like individual awards, winners and runner ups in these categories are selected by a voting committee made up of a panel of executives based on written submissions that address the award criteria.

In 2016 PanAust celebrated its 7th Annual Employee Awards in Vientiane, Laos. PanAust Managing Director, Dr Fred Hess, reflected on the special event, "It was great to see so many people across our business come together to celebrate one of the Company's most valuable assets, its people. I would like to extend my congratulations to the individuals and teams who received nominations and awards this year."

The Annual Employee Awards Program has become a vital component of PanAust's engagement with its workforce and reinforces PanAust's commitment to celebrating and recognising the contribution its employees make to the ongoing success of the Company.

## EMPLOYEE ENGAGEMENT INITIATIVES

INITIATIVE	DESCRIPTION
In-house career and professional development programs	Described under the Training and Development section
English language training	Basic/intermediate/advanced language training with a focus on technical language appropriate for the mining sector
One-off retirement benefit	Benefit to improve retirement security (Lao employees only)
Travel allowance	Allowance to help cover the cost of travel to a Company pick up point (Laos only)
Medical insurance assistance	For individuals and their immediate family members (Lao, PNG citizens and expatriates only)
Company paid parental leave for women and men	Paid parental leave for primary and secondary care-givers (Lao employees only)
Individual achievement plans	Plan developed annually to ensure employees understand how their work aligns with PanAust's business goals
New employee inductions	Introduces employees to the Company vision and values and its approach to sustainability and HR standards.
Short-term incentive program	Offered at all levels of the organisation linking individual and team performance to Company objectives with a variable payment made if performance targets are met
Long-term incentive program	Incentive in the form of a retention bonus is offered at all levels of the organisation where an award payment may be made subject to sustained tenure and Company long-term performance
Internal communications	Communications about Company achievements, initiatives and highlights delivered via Company newsletters (translated to relevant local language) or through video recordings from the Managing Director
Employee survey	A mechanism for employees to provide feedback on what is going well at PanAust and what they think will improve the Company
Pre-shift briefings	Pre-shift briefings pre-written for front-line leaders to verbally broadcast key messages (ensures communications reach those employees without a computer or high levels of literacy)
Quarterly briefings of results	Cascading briefings of quarterly performance and results to all employees through a pro-forma presentation
Monthly employee information briefings	Monthly updates on Company performance and special topic information sessions to employees (corporate office only)
Visible safety leadership	Deep dive audits of high risk work activity by senior management to improve visible safety leadership
Variety of entertainment, food and hygiene options	Offer of a variety of entertainment, food and hygiene options within the accommodation camps to ensure options for a variety of tastes and lifestyles (Laos only)
Employee Representative Committee	Committee to advocate for employees in the workplace (Lao workforce only)
Employee awards	Awards to recognise team and individual excellence across the Group
Long service awards	Long service awards (> ten years service) to recognise employee commitment to PanAust's ongoing success



A group portrait of PanAust's Employee Awards recipients (teams and individuals) at the Awards Gala, May 2016



## OUR PEOPLE (CONTINUED)

### ALIGNING EMPLOYEES WITH COMPANY POLICIES AND BUSINESS SYSTEMS

Systems supporting the health and wellbeing of employees operate throughout the Company in both an international and country-specific capacity. At all PanAust operations, in-house medical and recreational facilities are available to employees and a comprehensive range of insurance plans ensure protection for unexpected events. The Company's Employee Assistance Program (EAP) provides a confidential counselling service for employees and their eligible family members to deal with personal and work-related issues.

PanAust fosters an open and transparent environment in which employees are encouraged to report conduct contrary to *The PanAust Way*. Employees are first introduced to the code of conduct outlined in *The PanAust Way* during their employee induction, with refresher training run on a regular basis to ensure all employees understand their code of conduct obligations. Supporting *The PanAust Way* is an externally provided Whistleblower Service (refer to page 21), which provides a confidential and anonymous means of reporting or raising concerns about serious misconduct.

Information regarding PanAust's expectations for employees' performance and behaviour is readily accessible by employees via the Company's intranet site. Concerns by employees who believe they have been treated unfairly are handled formally via the Company's Fair Treatment Process. Further information about the Company's HR systems is communicated across the Group in English and local languages and is reinforced periodically through employee briefings and an employee newsletter.

### WORKPLACE DIVERSITY

PanAust recognises that a diverse workforce brings a wide range of perspectives and experiences which enables business innovation and drives Company success. PanAust creates an inclusive environment where employees are treated fairly, can demonstrate their potential talent and are rewarded based on merit.

The Company pays particular attention to ethnic and gender diversity in order to meet strategic objectives as well as commitments to relevant legislation and host countries. Workplace diversity is promoted and supported at PanAust with policies and standards including the Employee Policy and the Diversity Standard. Both are readily available on the Company website and are available to employees on the Company's intranet. All new employees receive an introduction to the Policy and Standard during their induction. The Company's code of conduct, *The PanAust Way* also emphasises behavioural expectations that underpin diversity in the workplace.

Topics such as child labour, equal employment opportunity, diversity, appropriate workplace behaviour and complying with host country laws are also covered during inductions and when communicating the *The PanAust Way*. Supplier contracts also stipulate the required standards of behaviour when working on PanAust sites or on behalf of the Company including ensuring that forced labour is not used.

PanAust minimises the risk of inadvertently hiring underage workers (child labour) through rigorous recruitment processes. The Recruitment and Selection Standard contains a specific review process to ensure minors are not employed.

The minimum age for employment is 18 years and it is a Company requirement for recruits to provide proof of age prior to commencing employment. The majority of the PanAust workforce is between 20 and 50 years old.

### WORKFORCE STATISTICS THREE YEARS TO 31 DECEMBER 2016

	2014	2015	2016
<b>PANAUST GROUP</b>			
Full-time employees (permanent, fixed-term)	3,721	3,474	3,405
Women	647	587	569
Women as a percentage of PanAust workforce	17%	17%	17%
<b>PHU BIA MINING (PBM)</b>			
Full-time employees (permanent, fixed-term)	3,623	3,276	3,249
Lao-nationals	3,156	2,947	2,946
Expatriates*	467	329	303
Women	614	541	536
Lao-nationals as a percentage of PBM workforce	*88%	^90%	91%
Expatriates as a percentage of PBM workforce	12%	10%	9%
Women as a percentage of PBM workforce	17%	17%	17%
<b>FRIEDA RIVER PROJECT (FRP)</b>			
Full-time employees (permanent, fixed-term)	N/A	124	100
PNG-nationals	N/A	^118	96
Expatriates	N/A	6	4
Women	N/A	14	10
PNG-nationals as a percentage of FRP workforce	N/A	95%	96%
Expatriates as a percentage of FRP workforce	N/A	5%	4%
Women as a percentage of FRP workforce	N/A	11%	10%

\* During the reporting years, expatriates were predominantly sourced from PNG, Thailand, The Philippines, Malaysia, Indonesia, Australia, New Zealand, USA and European countries

# Lao-nationals as a percentage of the PBM workforce included casuals (averaged over 12 months) for reporting periods 2013 and 2014; 485 and 182 respectively; due to a change in reporting protocols commencing in 2015, casuals are excluded from this calculation

^ Number of Lao-national casual employees (averaged over 12 months) for 2015: 108, 2016: 72; number of PNG-national casual employees (averaged over 12 months) for 2015: 25, 2016: 24

**BREAKDOWN OF PANAUST GROUP EMPLOYEES BY AGE GROUP**

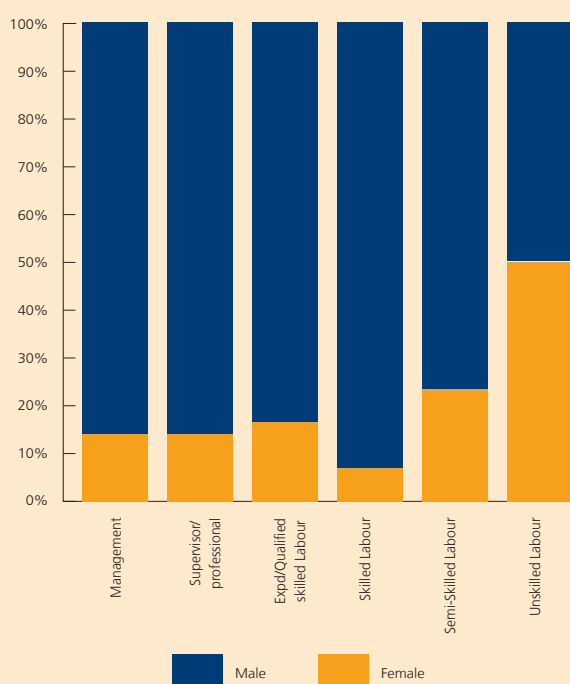
AGE GROUP	TOTAL EMPLOYEES	PERCENTAGE OF WORKFORCE
18-20	9	0.4
20-30	1,375	40
30-50	1,855	55
50-60	151	4
Over 60	15	0.6

**GENDER**

As of 31 December 2016 the PanAust Group had a total workforce numbering 3,405, of which 569 were women (17 per cent of the total workforce) which include 27 in management roles (16 per cent of all management roles across the Company).

PanAust's Lao-based workforce (Phu Bia Mining) numbered 3,249 with 536 roles filled by women (17 per cent of Phu Bia Mining; consistent with 2014 and 2015). A further breakdown indicates that women held roles that included 17 with management responsibility and 95 with a supervisory or professional capacity.

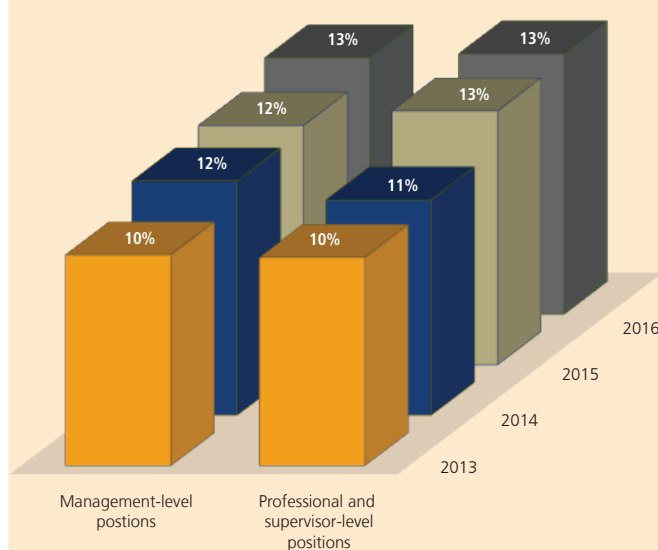
Regular analysis is undertaken by the Company to track the proportion of women within various job categories especially in mining operator and technical maintenance type jobs that are atypical for women. In 2016 Phu Bia Mining employed 125 women in operator and technical maintenance jobs (representing 11 per cent of the total jobs in this job family) and 14 in trainee/apprentice jobs (representing 18 per cent of total roles in this job family). This proportion was unchanged from 2015.

**2016 BREAKDOWN OF PANAUST ROLE CATEGORIES BY GENDER**

In December 2011 PanAust established a Diversity Committee which identified a lack of women in professional and management level roles via an internal workforce diversity benchmarking survey.

In response to survey findings, the Company implemented an adaptation of the 'Rooney Rule' to increase female participation in the workforce by actively encouraging female applicants during the recruitment and selection process. The objective was to actively source and interview at least one female applicant who met the minimum criteria, skills and experience required for a role vacancy.

Following implementation of the adapted rule, the Company has seen an increase in the number of women in management and professional/supervisory roles between 2013 and 2016 (a total increase of 23 women).

**PROFESSIONAL AND MANAGEMENT LEVEL ROLES OCCUPIED BY WOMEN 2013-2016 (LAO OPERATIONS)****SPECIAL RECOGNITION FOR PHU BIA MINING LAO WOMEN IN LEADERSHIP ROLES**

PanAust's ongoing commitment to career and leadership development of Lao women received special recognition during a 'Women in Leadership Conference' held over two days in Vientiane, Laos during 2016. Four women who were considered leaders and high potential employees at Phu Bia Mining featured in a video prepared by the Australian Chamber of Commerce, Laos. These women talked about their career success, the support programs provided by Phu Bia Mining and future career aspirations. The video premiered during the conference which was opened by the Australian Deputy Prime Minister and Minister for Foreign Affairs, the Hon. Julie Bishop MP. The conference also included a variety of guest speakers, workshops and case studies aimed at furthering the development of women in leadership roles in the Lao PDR.

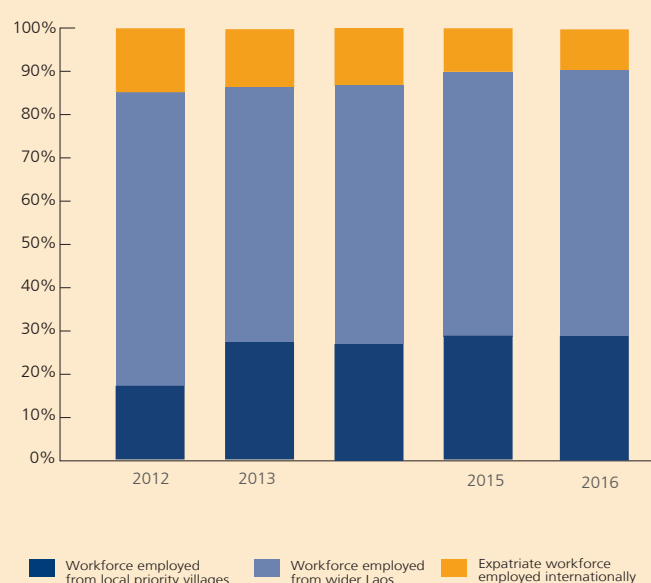


## OUR PEOPLE (CONTINUED)

### TARGETED RECRUITMENT IN LOCAL PRIORITY VILLAGES

PanAust continues to focus on providing employment and career development opportunities to local villagers. This targeted recruitment strategy has contributed to increasing the participation of these people in the workforce. Pleasingly from 2012-2016, the representation of this group in the workforce has risen from 17 to 29 per cent, and is summarised below.

**BREAKDOWN OF EMPLOYEES BY EMPLOYMENT LOCATION 2012–2016 (LAO OPERATIONS)**



**NUMBER OF LAO-NATIONALS EMPLOYED BY PHU BIA MINING FROM LOCAL PRIORITY VILLAGES\***

ROLE TYPE	2014	2015	2016
Unskilled labour^	N/A	N/A	182
Semi-skilled labour^	N/A	N/A	335
Skilled labour	84	115	288
Experienced/qualified skilled labour^	N/A	N/A	115
Supervisory/professional roles	12	19	48
Management	0	1	1

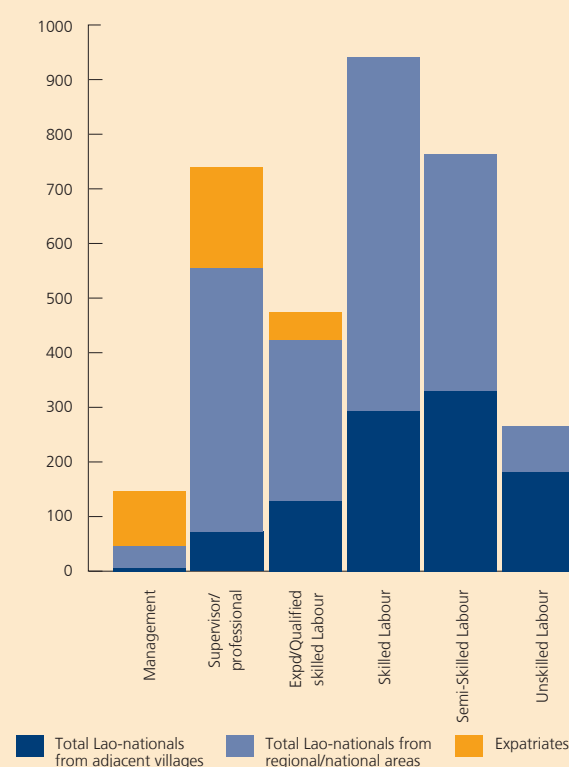
\* Local priority villages are those villages which the Company has determined to be most impacted by its operations (either mine site or concentrate haulage route).

^ New category introduced in 2016 following recommendation by external auditor to display all role categories for transparency and consistency.

All unskilled/entry level roles at Phu Bia Mining are filled by people from local villages. Aptitude testing forms part of the recruitment process for these roles. The Company uses a culturally neutral, language-free assessment tool to identify candidates with strong cognitive capacity and 'trainability'.

In using this test the Company ensures candidates from local communities with limited education or language barriers due to different dialects are not excluded from employment opportunities. The use of this specialised aptitude testing maximises the Company's ability to source suitable candidates from local villages. For operator/tradesperson and trainee/apprentice roles, Phu Bia Mining engages 38 per cent of employees from local villages and provides training required to successfully transition into the job.

**BREAKDOWN OF EMPLOYEES BY LOCALITY AS AT 31 DECEMBER 2016 (LAO OPERATIONS)**



Similar to the approach adopted in Laos, Frieda River Limited has a preferential recruitment strategy, which, in the first instance, targets the recruitment of local citizens with requisite skills and experience. This is part of a broader strategy documented in the Employment and Training Plan submitted as part of the application for a Special Mining Lease and registered by PanAust with the Mineral Resources Authority, PNG in June 2016.

In 2016, 51 per cent of PNG-nationals employed by the Frieda River Project originated from either landowning communities or the Sepik River logistics corridor.

## CASE STUDY

## WORKPLACE REPRESENTATIVE COMMITTEE



Some members of Phu Bia Mining's Workplace Representative Committee

Established in 2011, Phu Bia Mining's Workplace Representative Committee was founded with the aim of promoting harmonious relationships between the Company and its employees, and to provide a mechanism by which both the Company and employees can constructively raise and resolve issues when differences arise. The committee plays an integral role in the Company's engagement strategy with its employees and has been instrumental in aligning workforce performance to the needs of the business.

The committee has a charter which defines its roles and responsibilities and reaffirms the relationship between the Company and its employees which is founded on key values and principles, including:

- Mutual interest in the success, well-being and prosperity of all stakeholders
- Integrity in dealings with each other and the Union Federation of Lao PDR
- Respect for each other and all stakeholders that may be influenced by this relationship
- Fair, honest and transparent communication.

Committee members are nominated by the workforce and ratified by the Executive Management Team in Laos. The committee then elects a President and Deputy President,

with the President not permitted to serve more than a two-year term in this role. The committee has grown from an initial six-person group to one that now totals 22, with each department across Phu Bia Mining represented.

Committee meetings are held every quarter and all committee members are required to attend. The Company is represented at the meetings by the Human Resources Manager. All meetings are minuted and recorded. Minutes are distributed to committee members and the Executive Management Team in Laos with the intent that they discuss the outcomes of the meeting with their work teams and departments.

Since its establishment, the committee has been an instrumental tool in assisting the Company to engage with the broader employee pool and has enabled the Company to more readily understand issues important to its employees, and develop strategies and programs to address these issues. Some of the programs that have been implemented as a direct result of the committee's activities include: the establishment of a travel allowance for eligible Lao employees; a service award program that recognises the contribution that long serving employees make to the Company; and, greater flexibility with regards working hours for employees in the Vientiane office.

The committee is also another avenue in which the Company engages with the Government of Laos with various government officials invited to attend its meetings on an ad-hoc basis.



## Materiality Counts

### Materiality Counts Independent Assurance Report to PanAust

#### Scope of Work

Materiality Counts was engaged by PanAust to provide independent limited assurance of its 2016 Business Review and Sustainability Report (the Report) to the scope of work outlined below. The Report covers PanAust's operations for the 12 months to 31 December 2016, unless stated otherwise in the text. The work was performed using Materiality Counts' assurance methodology to ISAE 3000, the *International Standard on Assurance Engagements Other than Audits or Review of Historical Financial Information*. Material issues and related datasets are assured on a five-year rolling program, which was used as a basis to determine this year's scope. Materiality Counts interviewed a number of personnel and reviewed relevant data and documentation at PanAust's offices in Brisbane and Vientiane and the majority of PanAust's operations, namely the Phu Kham and Ban Houayxai operations in Laos. Data collation processes were reviewed, original records sighted, spreadsheets interrogated and calculations re-performed.

The subject matter for the assurance consisted of the following six material issues and related datasets: **community relations** (grievances); **stakeholder engagement** (stakeholders and interested parties table); **energy and carbon management** (energy use for Scope 1 and 2 greenhouse gas (GHG) emissions - reasonable assurance); **tailings and waste rock** (data, management and governance processes); **vehicles and mobile equipment** (significant incidents); **security management** (United Nations Voluntary Principles of Security and Human Rights); NB whilst material issues relating specifically to governance and our people are not included in this year's scope, they have represented a key part of the five-year rolling program for assurance and will be included in the scope next year.

The criteria for the assurance consisted of the following three elements:

- Provision of a balanced representation of material issues in the Report.
- Accuracy of the performance data and statements in the Report.
- Validity of the self-declared Global Reporting Initiative (GRI) G4 Core reporting.

#### Materiality Counts' Independence

PanAust was responsible for preparing the Report. Materiality Counts was responsible for expressing assurance conclusions regarding the material issues detailed above in line with the scope of work agreed with PanAust. During the reporting period, Materiality Counts did not work with PanAust on other consulting work. Materiality Counts is an independent consultancy specialising in report development and assurance, materiality determination, stakeholder partnerships and strategy development.

#### Our Conclusion

Materiality Counts concludes that, based on the scope of work and related limitations, for the specified subject matter, PanAust's 2016 Sustainability Report provides a balanced representation of the material issues concerning PanAust, reports accurate performance information and satisfies the requirements of GRI G4 Core reporting for the 12 months to 31 December 2016. In addition, Materiality Counts has provided a management report to PanAust.

#### Key Observations

Based on the scope of work, and without affecting our assurance conclusion, Materiality Counts identified the following good practice:

- **Security management:** Comprehensive risk-based security training is provided for site security personnel in Laos, including the United Nations Voluntary Principles on Security and Human Rights.
- **Tailings and waste rock data management:** Extensive monitoring is undertaken supporting comprehensive and pro-active reporting commensurate with the significance of this environmental risk.
- **Community grievances:** Community incident reporting has improved year-on-year with previous assurance recommendations implemented effectively in 2016.

Materiality Counts identified an area for improvement in relation to the classification of vehicle incidents, whereby a conservative approach has resulted in over-reporting in 2016. This was fully addressed during the assurance process.

Materiality Counts congratulates PanAust on its continued commitment to sustainability reporting.



Materiality Counts, 24 May 2017, Melbourne, Australia

Materiality Counts has prepared this statement for PanAust in accordance with the standard practised by members of the consulting profession performing this type of service at the same time. No other warranty, express or implied, is given by Materiality Counts as a result of the provision of this statement. To the extent permitted by law, this statement is provided for informational purposes only, without the right to rely, and Materiality Counts will not be liable for any reliance which may be placed on this statement by a third party. This statement may not be used by any third party without Materiality Counts' express written permission.

NAME OF ENTITY	PLACE OF INCORPORATION	CLASS OF SHARES	% EQUITY HOLDING*	PRINCIPAL ACTIVITIES
PanAust IDO SpA (a)	Chile	Ordinary	100	Investment holding
PanAust Minera IDO Limitada (a)	Chile	Ordinary	100	Investment holding
Inca de Oro S.A.(a)	Chile	Ordinary	66	Exploration
PanAust Atacama SpA	Chile	Ordinary	100	Investment holding
PanAust South America Services SpA	Chile	Ordinary	100	Services
Phu Bia Mining Limited	Laos	Ordinary	90	Exploration and mining
Wuntho Resources Limited	Myanmar	Ordinary	80	Exploration
PanAust Services (Myanmar) Company Ltd	Myanmar	Ordinary	100	Exploration
Frieda River Limited (b)	PNG	Ordinary and Redeemable Preference Shares	100	Exploration
Pan Mekong Exploration Pty Ltd	Queensland	Ordinary	100	Investment holding
PanAust Exploration Pty Ltd	Queensland	Ordinary	100	Dormant for the period
PanAust Services Pty Ltd	Queensland	Ordinary	100	Services
PNA (Putthep) Pty Ltd	Queensland	Ordinary	100	Investment holding
PanAust Holdings Pte Ltd	Singapore	Ordinary	100	Investment holding
PanAust Chile Holdings Pte Ltd	Singapore	Ordinary	100	Investment holding
PanAust IDO Holdings Pte Ltd (a)	Singapore	Ordinary	100	Investment holding
PanAust SPV1 Pte Ltd	Singapore	Ordinary	100	Investment holding
PanAust SPV2 Pte Ltd	Singapore	Ordinary	100	Investment holding
PanAust Myanmar Pte Ltd	Singapore	Ordinary	100	Investment holding
PanAust Services (Thailand) Company Limited	Thailand	Ordinary	100	Services
Masons Hill Gold NL	Western Australia	Ordinary	90	Dormant for the period

\* Beneficial interest

(a) During the year ended 31 December 2016, Inca de Oro S.A made calls upon shareholders. As a result of the responses to the calls and following the issue of shares, PanAust holds a 66.2% (2015: 66.8%) beneficial interest in Inca de Oro S.A.

As a result of the change of control of PanAust in 2015, a put option was triggered under the shareholders' agreement of PanAust IDO Holdings Pte. Ltd. ('the PAIH Shareholders' Agreement'). Victory Mining Ventures Limited ('VMV') exercised its option to sell its 8.07% interest in PAIH to PanAust Holdings Pte. Ltd ('PAH'). In accordance with the PAIH Shareholders' Agreement, an independent valuation was obtained to determine the purchase price. The independent valuation resulted in a purchase price of US\$3 million. The Company purchased VMV's interest in PAIH for US\$3 million.

(b) This subsidiary holds an 80% interest in the Frieda River Copper-Gold Project in Papua New Guinea. The remaining 20% interest is held by Highlands Frieda Limited.







## FEEDBACK

### PROVIDE FEEDBACK ON THIS REPORT

To provide feedback on this *Business Review & Sustainability Report*, go to [www.panaust.com.au/reports](http://www.panaust.com.au/reports) and click on the Sustainability Report FEEDBACK SURVEY button.

To request further information about this Report and or any of the content within it, email [info@panaust.com.au](mailto:info@panaust.com.au) or telephone +61 7 3117 2000.





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